GOVERNMENT DEGREE COLLEGE, SHADNAGAR

INTERNAL EXAMS PATTERN

Time: 60 mins. Max. Marks: 20

Section-A

1. Multiple Choice Questions (Marks: 1X1/2= 5 M)

Section-B

2. Fill in the blanks (Marks: 1X1/2= 5 M)

Section-C

3. One word answers (Marks: 5X1= 5 M)

Section-D

4. Assignment (Marks=5 M)

PRINCIPAL

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Govt. Degree College
Shadnagar.
Ranga Reddy Dt.

GOVT. DEGREE COLLEGE
SHADNAGAR.
T. S.
DIST: RANGA REDDY

Govt. Degree College Shadnagar
Physics - Iyear Isem (2021-22) Max. Marks:-15
Mechanics & Oscillations Time:-30min.
Internal Exam.

Part-A. MCQs $10 \times \frac{1}{2} = 05$

① If the given two vectors $\bar{A}$ & $\bar{B}$ are at right angle then $\bar{A} \cdot \bar{B} = (\ )$

(a) 1 (b) 0 (c) ∞ (d) AB

② $\bar{A} \times (\bar{B} + \bar{C}) = \bar{A} \times \bar{B} + \bar{A} \times \bar{C}$, this eqn ? property of vectorproduct. (c)

(a) Associative (b) Commutative (c) Distributive (d) none

③ Scalar product of unit orthogonal vectors is given by ( )

(a) $i \cdot i = j \cdot j = k \cdot k = 1$ (b) $k \times i = j$ (c) $\bar{A} \times \bar{B} = AB \sin\theta$ (d) $\bar{A} \cdot \bar{B} = \bar{B} \cdot \bar{A}$

④ If div $\bar{A}$ is negative then it means fluid serves as ( )

(a) Source (b) Sink (c) Surface (d) Working substance.

⑤ If curl $\bar{A} \neq 0$ then A is ( )

(a) Rotational (b) irrotational (c) scalar (d) negative

⑥ Thurst on the rocket is given by ( )

(a) F_{ext} (b) $T = \frac{dM}{dt}(v-u)$ (c) $\log M_0/M$ (d) gt.

⑦ Law of conservation of linear momentum is given by ( )

(a) $P = mv$ (b) $\bar{L} = \bar{r} \times \bar{P}$ (c) $F_{ext} = 0 \Rightarrow P = \text{const}$ (d) $\tau_{ext} = 0 \Rightarrow L = \text{const}$

⑧ In eqn $w = w_0 + \alpha t$, w_0 represents ( )

(a) Angular acceleration (b) time (c) angular displacement
(d) angular velocity (initial).

⑨ In eqn. $\bar{L} = \vec{I} w$, the $\overleftrightarrow{I}$ represents ( )

(a) scalar (b) vector (c) tensor (d) none.

(10) $\left(\frac{d\bar{L}}{dt}\right)_{space} = \left(\frac{d\bar{L}}{dt}\right)_{body} + \underline{\quad ? \quad} \times (\quad)$

(a) $I\omega$ (b) γ (c) $\omega \times L$ (d) $\omega_x \omega_y$

Part-B :- Fill in the blanks $10 \times \frac{1}{2} = 05$

(11) The linear integration, along closed curve in Lamellas vectors field is _____.

(12) The curl of a vector field is a _____ quantity.

(13) $\iiint_V (\phi \nabla^2 \psi + \nabla\phi \cdot \nabla\psi)\, dv =$ _____

(14) Newton's first law is also known as _____.

(15) The eqn representing motion of a rocket = _____

(16) Angular displacement $\theta =$ _____ radians

(17) $x = ut + \frac{1}{2}at^2$, write similar type of eqn in angular or rotation motion _____

(18) If $I_x \neq I_y \neq I_z$, the body is _____.

(19) Third Euler's eqn _____

(20) Precessional velocity $\omega_p =$ _____

Part-C :- V.S.A.Q. $5 \times 1 = 5$

(21) Divergence of a vector field (22) Stokes theorem (math. form)

(23) Green's theorem second part (24) Impact parameter

(25) Rigid body.

(13)

Govt Degree College Shadnagar
Rangareddy Dist. (2021-22) Time:-30 min
Internal exams - I sem
Max. Marks:-15
Physics - Mechanics & Oscillations

Section A:- $10 \times \frac{1}{2} = 05$, MCQ.

① Optical path difference in terms of λ in M.M. experiment ( )
a). $\frac{lv^2}{c^3}$ b). $\frac{lv^2}{\lambda c^2}$ c). $\frac{lv^2}{c^3\lambda}$ d). $\frac{\lambda v^2}{lc^2}$.

② The value of k in Lorentz transformation eq. $x' = k(x - vt)$ ( )
a) $k = x'^2 + y'^2 + z'^2$ b) $k = \frac{1}{(1 - v^2/c^2)}$ c) $k = \frac{1}{(1 - v^2/c^2)^{1/2}}$ d). $k = \frac{1}{x + vt}$

③ Inverse Lorentz transformation eqn for time is ( )
a) $t' = t - xv/c^2$ b) $t' = t + \frac{xv}{c^2}$ c) $t = k\left(t' - \frac{xv}{c^2}\right)$. d) $t = k\left(t' + \frac{x'}{c}\right)$

④ In length contraction $l = l'\sqrt{1 - \frac{v^2}{c^2}}$ then for $v \simeq c$, ( )
a) $l < l'$ b) $l > l'$ c) $l = l'$ d) $l = l'/2$.

⑤ The formula $u = \frac{u' + v}{1 + \frac{u'v}{c^2}}$ changes to $\frac{?}{}$, if $u' = c + v = c$ ( )
a) $u = v$ b) $u = c$ c) $u' = v$ c) $u' = 2c$.

⑥ In formula $m = \frac{m_0}{\sqrt{1 - v^2/c^2}}$, the term m_0 represents ( )
a). rest mass b) active mass c) effective mass d) differe in mass

⑦ for $t = 3T/4$, velocity of the SHO is ( )
a) ∞ b) $a\omega$ c) $-a\omega$ d) 0

⑧ ν = frequency = $\frac{1}{2\pi}\sqrt{\frac{?}{\text{displacement}}}$ ( )
a) velocity b) Time period c) acceleration d) length

(9) In eqn $T = 2\pi\sqrt{\frac{I}{C}}$, the torsional rigidity $c = ?$ ( )

(a) $\frac{\pi \eta r^4}{2l}$ (b) $\frac{MR^2}{2}$ (c) $1/T^2$ (d) negative

(10) In eqn $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$, if $a = b$ then it represents ( )

(a) ellipse (b) hyperbola (c) circle (d) straight line.

Section-B :- $10 \times 1/2 = 05$, Fill in the blanks :-

(11) The frame in which Newton's laws are not valid are called as _____.

(12) M-M experiment attempted to measure the speed of light relative to _____.

(13) The Lorentz transformation formula for time is $t' =$

(14) In four vector formalism $x_4 =$ _____

(15) In SHM, acceleration is proportional to _____ ?

(16) $v = \omega\sqrt{a^2 - x^2}$ then for $x = a$, $v =$ _____

(17) The equivalent length of compound pendulum is _____

(18) The differential eqn of SHO is _____

(19) Energy of SHO, $E =$ _____

(20) In $\theta = \omega\tau$, τ represents _____

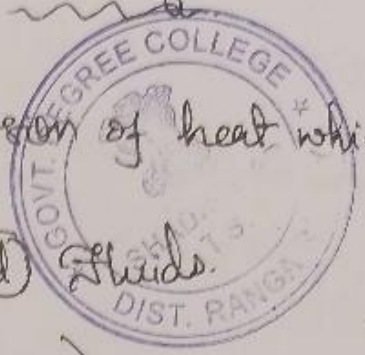
Section-C $5 \times 1 = 5$, Very Short Answer questions.

(21) Periodic Motion (22) Time dilation (23) Draw Lissajous figure for (1:1) freq. with $\phi = \pi/4$ (24) Resonance (25) In amplitude reson

... when $b \to 0$

Govt. Degree College Shadnagar
Rangareddy Dist. (2021-22)
BSc Iyr (II Sem) :- Thermal Physics

Section-A : MCQ



① conduction is the mode of transmission of heat which takes in ___? ( )
(a) Gases (b) Liquids (c) Solids (d) Fluids.

② The unit of emissive power is ( )
(a) W/m^2 (b) Weber (c) Newton (d) Watt

③ $e_b = \sigma T^4$, then σ = _____? ( )
(a) 6.602×10^{-27} kg (b) 9.1×10^{-31} kg (c) 5.67×10^{-8} W/m^2-K^4 (d)

④ In eqn $(s+a+t) = 1$, The term 'a' represents ( )
(a) area (b) angle (c) absorptance (d) attenuation

⑤ In $\lambda_m T$ = const. the value of λ_m increases with ( )
(a) temperature (b) absolute temperature (c) material of BB
(d) none.

⑥ $E_\lambda d\lambda = \frac{8\pi kT}{\lambda^4} d\lambda$ represents ( )
(a) stefan's law (b) R.J law (c) Plank's law (d) F.D law.

⑦ As per Plank's radiation law, the radiation energy is inversely proportional to ___? power of λ. ( )
(a) 5 (b) 4 (c) 3 (d) 1

⑧ When λ is very small, then Plank's law reduces to ( )
(a) R.J law (b) Wein's law (c) Wein's displacement law (d) B.G.

(9) Disappearing filament pyrometer works between temp range ( )

(a) 600°c to 1500°c (b) 1500°c to 5000°c (c) 200°c to 500°c (d) >2000°c

(10) Radius of the sun R = ? ( )

(a) 1.5×10^{11} m (b) 6.92×10^{8} m (c) 5.67×10^{6} cm (d) 1340 km.

Section (B):- Define following :-

(1) Define Blackbody.

(2) Pyrometer

(3) Phase space

(4) Ensemble.

(5) Fermions.

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Govt. Degree College Shadnagar

B.Sc. IYr (IInd Term) - Internal exam (2021-22)

Thermal Physics.

Marks:-15

Section A:- MCQ

(1) $\bar{c}$ - Average speed is given by ( )

a). $\sqrt{\frac{2KT}{m}}$ b). $\sqrt{\frac{8KT}{m}}$ c). $\sqrt{\frac{3KT}{m}}$ d). $\sqrt{\frac{KT}{m}}$

(2) Due to transport of momentum ? phenomena arises ( )

a). Diffusion (b) Viscosity (c) Thermal conductivity d) Pressure.

(3) The relation between η & K is given by. ( )

(a) $K = \eta\lambda$ (b) $\eta = K\lambda$ (c) $\eta K = C_V$ d) $K = \eta C_V$

(4) A system in which neither mass nor energy is transferred across the boundary is called ( )

(a) Open system (b) Isolated system (c) Closed system d) Sink.

(5) Zeroth law of thermodynamics leads to the concept of ( )

(a) Temperature (b) Heat (c) Work d) Pressure.

(6) Work done in adiabatic process is given by ( )

(a) $W = \frac{R}{1-\gamma}(T_1)$ (b) $W = \frac{R}{1-\gamma}(T_2 - T_1)$ (c) $dW = PdV$ (d) $W = F.d$.

(7) When _____, melting point of substance rise with increase in pressure.

a). $V_1 = V_2$ (b) $V_2 < V_1$ (c) $V_2 > V_1$ d) $V_2 = V_1 = \infty$

(8) Liquifaction Temperature of He is ( )

(a) $-263^\circ C$ (b) $-273^\circ C$ (c) $-268^\circ C$ (d) $-278^\circ C$.

(9) In eqn $dQ = dU - BdI$. the term B represents ( )

(a) Intensity of magnetisation (b) Magnetic Induction (c) Flux

d). Permiability.

(10) $\chi = \frac{C}{T}$, in this relation χ means. ( )

(a) Retentivity (b) Coercivity (c) Susceptibility d). Permittivity

Section – B :- Fill in the blanks :- $10 \times \frac{1}{2} = 05$:-

(11) The relation of Diffusion is D = _____

(12) $c_p : \bar{c} : c_{rms}$ = _____

(13) Work done against friction is an example of _____

(14) Entropy is a measure of _____ of a system

(15) The entropy of the universe is _____.

(16) $Tds + PdV$ = _____

(17) $\left(\frac{\partial P}{\partial T}\right)$ = _____

(18) 2nd Tds eqn = _____

(19) Temperature at triple point is _____

(20) $T_f - T_i$ = _____ eq. of Adiabatic Demagnetisat

Section C :- Very Short Answer question :-

(21) Surroundings (22) second law Kelvin's statut (23) Name fo thermodynamical potentials (24) Latent heat (25) Joule expans

(25)

Govt. Degree College, Shadnagar
B.Sc (MPC) & (MPC), Hys (III Sem) (2021-22)
Physics - Paper-3 - Internal exam
Electromagnetic Theory

Max Marks (15)
Time: 30

Section-A
MCQ. $10 \times \frac{1}{2} = 05$

(1) Differential form of faradays law ( )
(a) $\nabla \times E = -\frac{\partial B}{\partial t}$ (b) $\oint_c E\,dl = \varepsilon$ (c) $\phi = \frac{B}{A}$ (d) $\varepsilon = -\frac{d\phi_B}{dt}$

(2) If $\phi_B = Mi$ Then ε for secondary coil is ( )
(a) $-M\frac{di}{dt}$ (b) $-M\frac{di}{dt}$ (c) i/A (d) $-\frac{\partial q}{\partial t}$

(3) $\nabla \cdot J + \frac{\partial \rho}{\partial t} = 0$ is valid only when ( )
(a) current varies (b) $\frac{\partial \rho}{\partial t} \neq 0$ (c) $\frac{\partial \rho}{\partial t} = 0$ (d) potential is zero.

(4) $\nabla \times B = \mu_0 \left[J + \frac{\partial D}{\partial t}\right]$ is also known as ( )
(a) Ampere's - Maxwell's law (b) Displacement current (c) flux (d)

(5) First maxwell's eqn for vacuum ( )
(a) $\nabla \cdot B = 0$ (b) $\nabla \cdot E = \frac{\rho}{\varepsilon_0}$ (c) $\nabla \cdot E = 0$ (d) $\nabla \times E = -\frac{\partial B}{\partial t}$

(6) The first boundary condition at dielectric boundary ( )
(a) $v = \frac{1}{\sqrt{\mu\varepsilon}}$ (b) $\nabla^2 B = \mu\varepsilon\frac{\partial^2 B}{\partial t^2}$ (c) $\frac{E_1}{E_2} = \frac{\sin\theta_2}{\sin\theta_1}$ (d) $D_1\cos\theta_1 = D$

(7) Units of poynting vector is ( )
(a) Watt/m^2 (b) Joule (c) m^2 (d) meter.

(8) If $t = L/R$ Then $i = i_0(1 - e^{-(R/L)t})$ changes to ( )
(a) $i = i_0$ (b) $i = i_0/2$ (c) $i = i_0(0.37)$ (d) $i = i_0(0.63)$

(9) The Decay of charge in R-C circuit is represented by ( )
(a) $q = q_0(1 - e^{-t/RC})$ (b) $q = q_0 \times 0.63$ (c) $q = q_0 e^{-t/RC}$ (d) $q = q_0 \cos$

Section-B :- Fill in the blanks. $10 \times 1/2 = 05$.

(11) In LCR series resonant ckt Z = _____

(12) In LCR ckt, when R is low, the peak is high & it is known as _____

(13) In LCR parallel ckt Q factor = _____

(14) An element which is not an energy source is a _____

(15) An _____ source is indicated by a (2).

(16) Continuity eqn is also known as _____

(17) The _____ of electric field intensities at the boundary of a charge less dielectric are equal.

(18) For AC through pure inductance, _____ by $\pi/2$ radians

(19) In parallel LCR ckt admittance Y = _____

(20) The three phase ac motor consists of two parts _____ & _____

Section-C - V.S.A.Q. $5 \times 1 = 5$.

(21) Lenz's law (22) Second Maxwell's eqn for dielectric medium.

(23) In Norton's theorem $I' = ?$ (24) Node (25) Active network.

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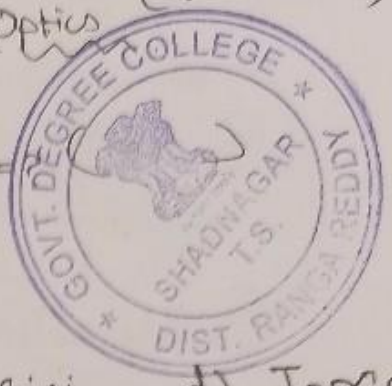
Govt. Degree College Shadnagar

Marks:- 15

B.Sc IInd (IV) sem. Physics (2021-22)

Internal exam – Optics

Section A:- $10 \times \frac{1}{2} = 05$ MCQ



(1) In eq. $I_\theta = I_0 \cos^2\theta$, $I_\theta = I_0$ if $\theta =$

a) 45° b) 90° c) 0° d) 180°

(2) Brewsters law is represented by ( )

a) $i = 90° - i_p$ b) $\mu = \tan i_p$ c) $\mu = \frac{\sin i}{\sin r}$ d) $I_\theta \propto \cos^2\theta$.

(3) In double refraction ? image moves when crystal is turned ( )

a) Ordinary b) extraordinary c) both d) none.

(4) In Nicol's prism, the angles will be ( )

a) 68°, 112° b) 71°, 109° c) 1°, 179° d) 90°, 90°

(5) As $\mu_e > \mu_o \Rightarrow V_e < V_o$ in ? crystal ( )

a) Canada balsam b) Ice c) Calcite d) Quartz.

(6) Measurent of lateral chromatic aberration is ( )

a) $B_R A_R - B_V A_V$ b) $I_R - I_V$ c) $\mu_V > \mu_R$ d) $f_R - f_V$

(7) $w = \frac{\mu_R - \mu_V}{\mu_y - 1}$, in this relation w stands for ( )

a) Angular frequency b) Work c) Dispersion d) Power of lens

(8) The condition for achromatic doublet is ( )

a) $\frac{f_R + f_V}{2} = f_y$ b) $V_R - V_V = \frac{2v}{f} V^2$ c) $\mu = \frac{\sin i}{\sin r}$ d) $\frac{f_1}{f_2} = -\frac{w_1}{w_2}$

(9) $\mu_1 y_1 \sin\theta_1 = \mu_2 y_2 \sin\theta_2$ is the condition for removal of ( )

a) Coma b) Astigmatism c) Curvature d) Distortion.

(10) Fibre optic is related to transportation of ? energy. ( )

a) electrical b) Optical c) Mechanical d) Thermal

Section-B:- $10 \times \frac{1}{2} = 05$ Fill in the blanks:-

(11) The light having vibrations in only one direction is known as _____.

(12) Double refraction means unpolarised light _____ after passing through calcite crystal.

(13) Polarisation by selective absorption is also known as _____

(14) _____ is an example of negative crystal.

(15) For half wave plate $t =$ _____

(16) In $S = \frac{100}{lc}$, the value of l is taken in _____ unit

(17) Curvature is a type of _____ aberration

(18) Longitudinal chromatic aberration for a concave lens is _____

(19) The two planes in "Astigmatism" are _____ & _____

(20) The optical fibres are based on principle of _____

Section C:- Very Short Answer Questions:-

(21) Optical Activity. (22) Example of laevo rotatory substance.

(23) Aberration (24) Main parts of optical fibre (25) Numerical aperture.

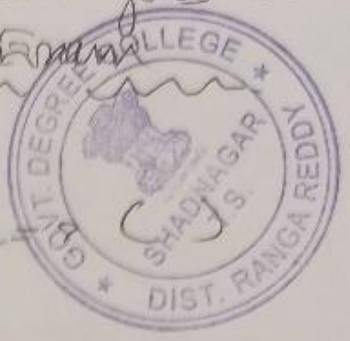
(10)

Government Degree College Shadnagar

Max. Marks:-15 Physics-5- Modern Physics-(2021-22)

Time:- 30min 2nd Internal Exam

Section-A:- MCQ : $10 \times \frac{1}{2} = 05$



(1) According to Bohr's Atomic Model $mvr = ?$ ( )

(a) $\hbar$ (b) $n\hbar$ (c) $2\hbar$ (d) none

(2) $1A^\circ$ will be equal to ( )

(a) 10^{-10}m (b) 10^{-10}cm (c) 10^{12} m (d) 10^{-18} cm

(3) Energy of the electron in first Bohr ~~orbit~~ is( )

(a) -1.51 eV (b) -3.4 eV (c) -13.6 eV (d) 0

(4) The value of Rydberg's const = ? ( )

(a) 9.1×10^{-31} kg (b) 1.602×10^{-19} coh (c) 467×10^{-21} m^{-1} (d) 1.097×10^{7} $\bar{n}$

(5) The spectral series which lies in visible region is( )

(a) Lyman series (b) Balmer series (c) Paschen series (d) Pfund series

(6) Magnetic orbital quantum no values are from ( )

(a) $-l$ to $+l$ (b) l to $2l$ (c) 0 to l (d) $-l$ to $(2l+1)$.

(7) In L-S coupling the possible values of S for three electrons ( )

(a) 1, 0 (b) 2, 1, 0 (c) $3/2$, $1/2$ (d) $-1/2$, $1/2$.

(8) for intensity rule $\Delta l = -1$ & $\Delta J = +1$ the value of IC

(a) Most intense (b) less intense (c) weaker (d) no transition

(9) If $a=b=c$ & $\alpha=\beta=\gamma \neq 90^\circ$ Then crystal system is( )

(a) cubic (b) Monoclinic (c) Triclinic (d) Rhombohedral.

(10) Ge, Si, C etc. are examples of ? crystal ( )

(a) Ionic (b) Molecular (c) Covalent (d) Metallic.

Section-B :- Fill in the blanks :- $10 \times \frac{1}{2} = 05$

(11) The interplanar spacing d = _____

(12) The no. of atoms per unit cell in BCC is _____

(13) For NaCl lattice the value of Madelung const. = _____

(14) Radius of Bohr orbit r_n = _____

(15) The reciprocal of the wavelength is known as _____

(16) According to Sommerfeld's theory, the shape of orbit is _____

(17) Selection rule for J is _____.

(18) In Zeeman effect, only 2 lines appear when spectrum is viewed _____

(19) In Born Haber cycle ΔH = _____.

(20) $K_2Cr_2O_7$ is the example of _____ crystal system.

Section-C :- Very Short Answer questions - $05 \times 01 = 05$.

(21) Basis (22) Miller Indices (23) Paschen Back effect

(24) Stark effect. (25) Two main concepts of vector atom model.

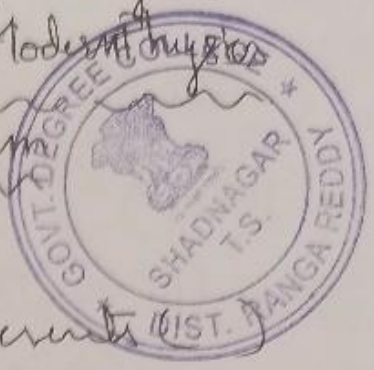
(10)

Govt. Degree College, Shadnagar

B.Sc (MPC & MPCs), Finals (2021-22)

Physics – V sem – Modern Physics

Internal Exam



Section-A :- MCQ, $10 \times \frac{1}{2} = 05$

(1) In equation $h\nu = W_0 + \frac{1}{2}mv^2$, W_0 represents

(a) Kinetic energy (b) Total energy (c) Work function (d) Velocity

(2) Threshold frequency is a function of ( )

(a) Photometal (b) velocity (c) potential (d) Intensity.

(3) In Compton effect $\Delta\lambda = 0$ if ( )

(a) $\theta = 0^\circ$ (b) $\theta = 90^\circ$ (c) $\theta = 180^\circ$ (d) $\theta = 45^\circ$

(4) Given $\lambda = \frac{12.26}{\sqrt{V}} A^\circ$, then $\lambda = ?$ if $V = 100$ volt ( )

(a) $12.26 A^\circ$ (b) $122.6 A^\circ$ (c) $1.226 A^\circ$ (d) $0.1226 A^\circ$

(5) In eqn $v_g = v_p - \frac{dv_p}{d\lambda} \cdot \frac{2\pi}{k}$, k represents ( )

(a) Wavelength (b) Phase velocity (c) Angular velocity

(d) Propagation const.

(6) In D-G experiment, the bump in the graph becomes more prominent when ( )

(a) $V = 54V$ (b) $V = 60V$ (c) $V = 44V$ (d) $V = 48V$.

(7) If ψ & ψ^* are the wavefunction & its complex simultaneous then probability density ( )

(a) ψ^2 (b) ψ^{*2} (c) $H\psi = E\psi$ (d) $|\psi|^2$

(8) Quantum Mechanical Operator of momentum is ( )

(a) $\frac{\hbar}{i}\nabla$ (b) $\frac{\hbar}{i}\nabla$ (c) $\frac{\hbar}{im}\nabla$ (d) $\frac{\hbar^2}{2m}\nabla^2$

(9) In $R = R_0 A^{1/3}$, R_0 = ? ( )

(a) 10^{-10} m (b) 10^{-15} m (c) 1.3×10^{-15} m (d) 1.1×10^{-10} m.

(10) $[Zm_p + (A-Z)m_n - M]c^2 =$? ( )

(a) B.E. (b) ΔM (c) f (d) ρ_N

Section-B Fill in the blanks :- $10 \times \frac{1}{2} = 05$

(11) Mass of proton _____

(12) In $N = N_0 e^{-\lambda t}$ eqn, N_0 represents _____

(13) In ${}_{Z}X^{A}$; A represents _____

(14) B.E of ${}_{26}Fe^{56}$ is _____

(15) Electric quadrapole moment = _____

(16) Magic no. in Shell Model _____

(17) α-particle is actually _____ ion.

(18) π^- meson decays into an _____ + _____

(19) In positive β-decay N/P ratio _____

(20) The maximum energy in β-spectrum is called _____

Section-C :- Very Short Answer Questions.

(21) Stopping potential (22) Matter wave (23) Heisenberg U. Pr.

(24) Operator (25) Gieger-Nuttal law.

Govt Degree College Shadnagar
Ranga reddy Dist.

Section:- A: MCQ Finalys VI sem - Physics (2021-22)
Electronics - Paper VI A

(1) The substance with least conductivity is ( )
(a) Metals (b) Diamond (c) Ge (d) As

(2) Example of acceptor impurity is ( )
(a) Ge (b) Si (c) B (d) As

(3) The layer which seperates the p-region from n region in a junction diode is ( )
(a) Junction layer (b) Depletion layer (c) Potential barrier (d) All

(4) The ckt which converts AC to DC is known as ( )
(a) Diode (b) Voltage regulator (c) Amplifier (d) Rectifier

(5) When $\pi \leq \omega t \leq 2\pi$ then $i_1 = ?$ ( )
(a) i_2 (b) 0 (c) ∞ (d) i_m

(6) In common base configuration the current amplification factor is ( )
(a) $\alpha = \frac{I_c}{I_E}$ (b) $\beta = \frac{I_c}{I_B}$ (c) $i_2' = \frac{V_2}{R_L}$ (d) $\eta = \frac{0.812}{1 + \frac{R_f}{R_L}}$

(7) If $\beta = 1$ then $\alpha = ?$ ( )
(a) 1 (b) 2 (c) 0 (d) $\frac{1}{2}$

(8) $I_E = \underline{\quad ? \quad}(I_B) + (1+\beta) I_{CBO}$ ( )
(a) $(1-\beta)$ (b) $\frac{1}{(1+\beta)}$ (c) $1+\alpha$ (d) $1+\beta$

(9) Power gain $A_p = \underline{\quad ? \quad}$ ( )
(a) βR (b) $\beta^2 R$ (c) ΔI_c (d) I

(10) The resultant phase difference due to 3, RC sections in a phase shift oscillator is ( )

(a) 180° (b) 60° (c) 360° (d) 90°

Section:-B

(11) The gap between valance band & conduction band is known as _____

(12) At 0°k, the semiconductors normally have an energy gap of _____ eV:

(13) As is a _____ impurity.

(14) The rectifier with four diodes is known as _____

(15) Zener diode can be utilized as _____.

(16) The collector is _____ doped region.

(17) $\alpha I_E + I_{CBO} =$ _____

(18) If $V_i = V_s + V_f = V_s + \beta V_o$ then feedback is _____

(19) Barkhausen Criterion _____

(20) $\frac{A}{1+A\beta}$ - _____

GOVT.DEGREE COLLEGE, SHADNAGAR,R.R-DIST

CBCS III YEAR 1ST INTERNAL EXAMINATION 2021

CHEMISTRY-PAPER-V

Name: **Roll Number:**

Group: **Date:**

Max.Marks:15 **SECTION-I** Time: 30min

Note: Answer all questions **10 x ½=5M**

Choose the Correct answer

1. Solvent extraction is more effective when the extraction is repeated with:
a) Extra solvent b) Large solvent c) Small solvent d)No solvent

2. What is the use of ether layer?
a) To separate organic impurities b) To separate inorganic impurities c) To separate fibers
d) To separate solvent

3. Solvent extraction is based on the relative_____of two liquids.
a) Odor b) Texture c) Solubility d) Color

4. What is the representation of distribution coefficient?
a) S b) H c) G d) K

5**.** Chromatography is used to separate
a)Solution b)Mixtures of compounds c) Molecules d) Atoms

6. Chromatography with solid stationary phase is called
a) GC b) HPLC c) Column Chromatography d)All.

7. Pattern on paper in chromatography is called
a)Chroming b) Chroma c) Chromatograph d) Chromatogram

8. In which type of chromatography, the stationary phase held in a narrow tube and the mobile phase is forced through it under pressure?

a) Column chromatography b) paper Chromatography c) Liquid chromatography d.None

9. Which of the following cannot be used as adsorbent in Column adsorption chromatography?

a) Magnesium oxide b) Silica gel c) Activated alumina d**)** Potassium permanganate

10. Principle involved in Paper Chromatography_____**.**

II. Fill up the blanks **10 x ½=5M**

1. Write the abbreviation of LLE_____

2. Mobile phase in HPLC_____

3. Distribution Law means.....

4. In Gas-liquid phase chromatography, the stationary phase is composed of_____and the mobile phase is made of _____

5. In Thin layer chromatography, the stationary phase is made of_____and the mobile phase is made of _____

6. GC abbreviation _____

7. Rf Value Means_____

8. HPLC means_____

9. Principle involved in Chromatography Technique_____

10. Write the examples of stationary phase in column chromatography----------

SECTION-III **5X1=5M**

III. Answer the following questions. Write answer in brief.

1. Write the applications of Column Chromatography?

2. What is Batch Extraction?

3. What is Developer?

4. What is Continuous Extraction?

5. What is Two Dimensional Chromatography?

GOVT DEGREE COLLEGE,SHADNAGAR

DEPARTMENT OF CHEMISTRY
I-INTERNAL ASSESSMENT FOR SEMESTER 4

TIME:30 MIN MARKS:15

GROUP:B.Sc MPC &BZC FINAL YEAR SUBJECT:CHEMISTRY PAPER-4

ROLL NO..... NAME OF THE STUDENT:…….

SECTION I 10*1=10 marks

Choose the correct answer. Question carries 1 mark each

1. The number of unpaired electrons calculated in [Co(NH3)4]+3 and [CoF6]3- ( )
   a) 4 and 4 b) 0 and 2 c) 2 and 4 d) 0 and 4

2. Which one of the following complexes show high stability? ( )
   a) $[Cu(NH3)4]^{+2}$ b) $[Cu(en)2]^{+2}$ c) $[Cu(trien)^{+2}$ d) none

3. The CFSE value for a high spin d^4 octahedral complex is ( )
   a) -0.6 b) -1.8 c) -1.6 d) -1.2

4. When d- orbital metal ion are split in energy in octahedral field,which orbitals are raised high in energy ( )
   a) d_{xy} and dx^2-y^2b) dx^2-$y^2$and d_{z^2}c)dxy ,dyz and dzx d)none

5.Formation of coordination complex can be detected by ( )

a)solubility b)PH c) color change d)all

6.D-Glucose does not give the following test ( )

a) Tollen's test b) Fehling's test c) Schiff's test d) All

7. Colour of Transition metal complexes is due to ( )

a) Unpaired electrons b) Paired up electrons c) None

SECTION II 1*3=3marks

Fill in the blanks

1. Write example for strong field ligand----------
2. In octahedral complexes d-orbitals split into ----------
3. Write spin only formula for magnetic moment ----------

SECTION III 5*1=5 Marks

1. Draw the splitting of the d-orbitals in octahedral complexes?

2.What is paramagnetic property?

3.write any two factors effecting CFSE?

4.Draw the structure of D-Glucose?

5.Define Inert complexes?

****

GOVT DEGREE COLLEGE,SHADNAGAR

DEPARTMENT OF CHEMISTRY
I-INTERNAL ASSESSMENT FOR SEMESTER 5

TIME:30 MIN MARKS:15

GROUP: B.Sc MPC&BZC FINAL YEAR SUBJECT:CHEMISTRY PAPER-5

ROLL NO:…….. NAME OF THE STUDENT:…….

SECTION I 10*1/2=5marks

Choose the correct answer. Question carries ½ mark each

1. The number of unpaired electrons calculated in [Co(NH3)4]+3 and [CoF6]3- ( )
   a) 4 and 4 b) 0 and 2 c) 2 and 4 d) 0 and 4

2. Which one of the following complexes show high stability? ( )
   a) $[Cu(NH3)4]^{+2}$ b) $[Cu(en)2]^{+2}$ c) $[Cu(trien)^{+2}$ d) none

3. The CFSE value for a high spin d^4octahedral complex is ( )
   a) -0.6 b) -1.8 c) -1.6 d) -1.2

4. When d- orbital metal ion are split in energy in octahedral field,which orbitals are raised high in energy ( )
   a) d_{xy} and dx^2-y^2 b) dx^2-y^2 and d_{z^2} c) dxy ,dyz and dzx d)none

5) Formation of coordination complex can be detected by ( )

   a)solubility b)PH c) color change d)all

6. In which of the following compound 3c-$2e^-$ bond is present ( )

7. In borane boron under goes the following hybridization ( )

8. is called as ( )

   a) 1,3,5-tri bromo Aniline b) Tri bromo A niline c) 2,4,6 tri bromo Aniline d) Aniline tribromide

9. Among the following least basic ( )

   a)Aniline b)NH3 c)CH3NH2 D) none

10.

SECTION II 10*1/2=5 marks

Fill in the blanks

1. spin only Magnetic moment in [Co(NH3)6]3+ complex----------
2. In octahedral complexes d-orbitals split into ----------
3. Ziegler Natta catalyst is used for ----------
4. The relationship between
5. In B2H6 the number of terminal B-H bonds----------
6. Carboranes are ---------- Boron and carbon
7. The compound with Banana bond----------
8. The basicity of Amines is due to ----------
9. On reduction of Amides ---------- is formed
10. ---------- is an example for primary amine

SECTION III 5*1=5 Marks

1.write eqution for half mann Bromamide reaction?

2. R-C-NH2 + 4[H]----------→ ----------

3. Draw the splitting of the d-orbitals in octahedral complexes?

4.What is paramagnetic property?

5.write any two factors effecting CFSE?

GOVT.DEGREE COLLEGE, SHADNAGAR,R.R-DIST

CBCS III YEAR 1ST INTERNAL EXAMINATION 2022

CHEMISTRY-PAPER-V

Name: **Roll Number:**

Group: **Date:**

Max.Marks:15 **SECTION-I** Time: 30min

Note: Answer all questions **10 x ½=5M**

Choose the Correct answer

1. Solvent extraction is more effective when the extraction is repeated with:
a) Extra solvent b) Large solvent c) Small solvent d)No solvent

2. What is the use of ether layer?
a) To separate organic impurities b) To separate inorganic impurities c) To separate fibers
d) To separate solvent

3. Solvent extraction is based on the relative_____of two liquids.
a) Odor b) Texture c) Solubility d) Color

4. What is the representation of distribution coefficient?
a) S b) H c) G d) K

5**.** Chromatography is used to separate
a)Solution b)Mixtures of compounds c) Molecules d) Atoms

6. Chromatography with solid stationary phase is called
a) GC b) HPLC c) Column Chromatography d)All.

7. Pattern on paper in chromatography is called
a)Chroming b) Chroma c) Chromatograph d) Chromatogram

8. In which type of chromatography, the stationary phase held in a narrow tube and the mobile phase is forced through it under pressure?

a) Column chromatography b) paper Chromatography c) Liquid chromatography d.None

9. Which of the following cannot be used as adsorbent in Column adsorption chromatography?

a) Magnesium oxide b) Silica gel c) Activated alumina d**)** Potassium permanganate

10. Principle involved in Paper Chromatography_____**.**

II. Fill up the blanks **10 x ½=5M**

1. Write the abbreviation of LLE_____

2. Mobile phase in HPLC_____

3. Distribution Law means.....

4. In Gas-liquid phase chromatography, the stationary phase is composed of_____and the mobile phase is made of _____

5. In Thin layer chromatography, the stationary phase is made of_____and the mobile phase is made of _____

6. GC abbreviation _____

7. Rf Value Means_____

8. HPLC means_____

9. Principle involved in Chromatography Technique_____

10. Write the examples of stationary phase in column chromatography----------

SECTION-III **5X1=5M**

III. Answer the following questions. Write answer in brief.

1. Write the applications of Column Chromatography?

2. What is Batch Extraction?

3. What is Developer?

4. What is Continuous Extraction?

5. What is Two Dimensional Chromatography?

GOVT. DEGREE COLLEGE, SHADNAGAR,R.R-DIST

CBCS II YEAR SEMISTER III IstInternal Examination 2022

CHEMISTRY

Name: **Roll No:**

Group: **Date:**

Max marks: 15 **SECTION-I** *Time: 30min*

Note: Answer all questions

Choose the correct answer *10X1/2=5M*

1. Which of the following oxidation states is the most common among the Lanthanides [ ]
   (a) 4 (b) 2 (c) 5 (d) 3
2. Reason of Lanthanide contraction is [ ]
   (a)Negligible screening effect of 'f' orbital
   (b) Increasing nuclear charge
   (c) Decreasing nuclear charge
   (d) Decreasing screening effect
3. $[Cr(NH_3)_4 (NO_2)_2] Cl$ exhibits [ ]
   (a) Linkage, Ionization and geometrical Isomerism
   (b) Ionization, geometrical and optical Isomerism
   (c) Linkage, geometrical and optical Isomerism
   (d) Linkage, Ionization and optical Isomerism

4. Among the following chelating ligands [ ]

   (a)NH_3 (b) H_2O (c) NH_2NH_2 (d) none

5. Calculate EAN in the central metal ion in $[Fe (CN)_6]^{4-}$ [ ]

   (a) 36 (b) 35 (c) 34 (d) None

6. Number of unpaired electrons on Fe in $[Fe (CN)_6]^{4-}$ [ ]

   (a) 0 (b) 2 (c) 3 (d) 4

7. IUPAC name of $[CoCl(NH_3)_5]^{2+}$_____[ ]

   (a)Pentammine Chlorido Cobalt(III) ion

(b)Hexammine Cobalt Chloride (III) (c) Both (d) None

8. I law of thermodynamics [ ]

(a) q=Δu+w (b) ΔU=q+w (c) Both (d) None

9. Isothermal Process means process takes place at [ ]

(a) Constant T (b) Q=0 (c) ΔT=0 (d) a & c

10. Enthalpy formula [ ]

(a) H=U+PV (b) H=U-PV (c) U=H+PV (d) None

SECTION --II

Fill in the blanks *10x1/2=5M*

1. Hybridisation on central metal ion in $[NiCl_4]^{2-}$ is_____
2. $CH_3COOH + SOCl_2$_____.
3. $CH_3COOH + CH_3MgX$_____.
4. Ligands are called_____.
5. EAN_____.
6. Relationship between Cp &Cv_____.
7. Ni +4CO_____.
8. Significant Figures are
9. Calculate the $[Cr(CO)_6]$ ---------- --.
10. Significant figures in 200.08_____.

SECTION- *III* *5X1=5M*

Answer all the following questions. Write answer in brief.

1. What is Lanthanide Contraction?

2. What is HVZ reaction?

3. What happens when Salicyclic acid treated with Bromine water?

4. Write the difference between Accuracy and Precision?

5. Define geometrical isomers Give examples?

GOVERNMENT DEGREE COLLEGE,SHADNAGAR

DEPARTMENT OF CHMISTRY

INTERNAL ASSESMENT -1

SEMESTER-I **MAX MARKS:15**

I.write all the multiple choice questions.

1.Which of the following is not an organic compound?

A.diamonds

B. Methane

C.ethylene

D.ethyne

2.What is the maximum number of covalent bonds carbon can form?

A. One

B.Two

C.Three

D.Four

3. What is the correct general formula for an alkane?

A. CnH2n+2

B. CnH2n

C.CnH2n-2

D.CnHn

4.Nitrogen is chemically inert. Why?

A. Due to presence of double bond require more energy to break
B.Due to presence of triple bond require more energy to break
C.Triple bond requires less energy to break
D.None of the above

5.Which elements listed does not belong to group 3A?

A. Thallium
B.Carbon
C.Boron
D.Aluminium

6. Which group 3A element is not a metal?

A.Aluminium
B.Gallium
C.Boron
D.Indium

7. Which of the following represents the oxidation state for group 4A elements?
A.+2
B.-4
C.+4
D.All answers are correc

8. The electronic configuration for group 3A element is ' $ns^2\ np^2$ '.

A. Yes
B.No
9. The molecular shape of SF4 is

A. square planar
B.see-saw
C.tetrahedral
D.bent 'T' shape
10. Which of these is the weakest single bond ?
A.P-P
B.N-N

2. FILL IN THE BLANKS.

1. SHAPE OF IF7
2. SHAPE OF CH_4----------
3. SHAPE OF C_2H_2----------
4. SHAPE OF BCl_3
5. SHAPE of NH_3----------

3 WRITE ALL THE FOLLOWING SHORT ANSWER QUESTION.
1. HYBRIDIZATION OF CH_4----------
2.HYBRIDIZATION OF C_2H_2----------
3.HYBRIDIZATION OF BCl_3----------
4.HYBRIDIZATION of NH_3----------
5.HYBRIDIZATION OF IF7----------

Govt. Degree College, Shadnagar

Department of Botany Sem. II Internal Assessment - I

Name of the student: _____ H.T.No: _____

Section-A Multiple Choice Questions [10 × ½ = 5M]

1. సాధారణంగా వివృతబీజాలలో పిండాభివృద్ధి
(a) ఏకపిండత (b) బహుపిండత (c) a & b (d) ఏదీకాదు [ ]

2. వివృత బీజాలలో అంకురచ్ఛదం స్థితి ఏమిటి.
(a) త్రయ స్థితికం (b) ద్వయస్థితికం (c) ఏకస్థితికం (d) బహుస్థితికం [ ]

3. మైక్రోరైజల్ వేళ్ళు దేనిలో ఉంటాయి.
(a) పైనస్ (b) నీటిమే (c) సైకస్ (d) థుజా [ ]

4. దారువులో దారు నాళాలు గల వివృతబీజం ఏది?
(a) సైకస్ (b) పైనస్ (c) నీటిమ్ (d) పైవేవీకాదు [ ]

5. రెక్కలున్న పరాగరేణువులు ఏ వివృతబీజంలో ఉంటాయి.
(a) పైనస్ (b) సైకస్ (c) నీటిమే (d) పైవన్నీ [ ]

6. పైనస్‌లో పొలుసాకుల గోపాలలో ఏర్పడే శాఖలు
(a) ప్రోస్ప్ర శాఖలు (b) దీర్ఘశాఖలు (c) పైరెండూ (d) ఏదీకాదు [ ]

7. ఎంగ్లర్-ప్రాంటల్ వర్గీకరణ ఏ కోవకు చెందినది.
(a) కృత్రిమ (b) సహజ వర్గీకరణ (c) వర్ధమాన వర్గీకరణ (d) ఏదీకాదు [ ]

8. కర్ర వర్ణనకు ఉపయోగించే మొక్క నమూనాను ఏమంటారు.
(a) పాంటైప్ (b) హోలోటైప్ (c) నియోటైప్ (d) ఐసోటైప్ [ ]

9. మొదటి నేల మొక్కలు అయిన బ్రయోఫైటులు, ఆదిమ టెరిడోఫైటులు ఈ యుగంలో ఉన్నాయి
(a) కేంబ్రియన్ యుగం (b) సైలురియన్ యుగం (c) డెవోనియన్ (d) పెర్మియన్ [ ]

10. వార్షిక వలయాలు దేని వల్ల ఏర్పడతాయి
(a) వసంత దారువు (b) శరద్దారువు (c) a & b (d) ఏది కాదు [ ]

SECTION-B FILL IN THE BLANKS

1. పైనస్ నీడిల్ _____ మొక్కల లక్షణాలను చూపుతుంది.
2. పైనస్‌లో ఏపుస్పరంగ పరాగరేణువులు విడుదలవడాన్ని _____ అంటారు
3. అసంగత ద్వితీయ వృద్ధి చూపే వివృతబీజ మొక్క _____
4. పైనస్‌లో పీర్సుడు బహుపిండత _____ రకానికి చెందినది.
5. పైనస్‌లో పత్రరంధ్రాలు _____ రకానికి చెందినవి.
6. వర్గీకరణ యొక్క మూల ప్రమాణం _____
7. ఎంగ్లర్-ప్రాంటల్ వర్గీకరణ _____ వర్గీకరణ పై ఆధారపడి చేయబడింది.
8. మొక్కల రసాయన లక్షణాలను వర్గీకరణలో ఉపయోగించిన దానిని _____ అంటారు.
9. బెంథమ్ హుకర్‌లు రచించిన గ్రంథం పేరు _____
10. ఒకటి లేదా రెండు బాహ్య స్వరూపాలను ఆధారంగా చేసుకొని చేయబడిన వర్గీకరణ _____

SECTION-C

(1) ఆబ్జులు (2) పైనస్ పరాగరేణువు (3) పోతలు (4) ఆధునిక జీవ మహాయుగం
(5) శిలాజం

Govt. Degree College, Shadnagar

Department of Botany Sem IV Internal Assessment - I

Name of the student: _____ HT.No: _____

Section-A Multiple choice Questions [10 x ½ = 5M]

1. ఈ క్రింది వాటిలో మాతృక కణజాలం అని దేనికి పేరు [ ]
(a) మృదు కణజాలం (b) స్థూలకోణీయ కణజాలం (c) దృఢ కణజాలం (d) పోషక కణజాలం

2. ద్వితీయ పార్శ్వ వృద్ధికి తోడ్పడునది [ ]
(a) దారువు (b) పోషక కణజాలం (c) విభాజ్యకణావళి (d) సహకణాలు

3. హిస్టోజెన్ సిద్ధాంతాన్ని ప్రతిపాదించిన శాస్త్రవేత్త ఎవరు. [ ]
(a) నెగేలి (b) రాబర్ట్ బ్రౌన్ (c) హాన్ స్టైన్ (d) ష్లైడన్

4. ఈ రకం పత్రరంధ్రాలలో రక్షక కణాలకు పార్శ్వ ఉపకణాలు వైపులా సమాంతరంగా రెండు అనుబంధ కణాలు అమరి ఉంటాయి. [ ]
(a) పారాసైటిక్ (b) డయాసైటిక్ (c) అనిసోసైటిక్ (d) అనైసోసైటిక్

5. పత్తి కేశాలు దేనితో నిర్మితమై ఉంటాయి [ ]
(a) సెల్యులోజ్ (b) లిగ్నిన్ (c) సుబరిన్ (d) ఏదీకాదు

6. వార్షిక వలయాలలో ఉండే దారువును ఏమంటారు [ ]
(a) వసంత దారువు (b) శరద్దారువు (c) రసదారువు (d) a & b

7. పత్రాలనుండి నీరు ద్రవరూపంలో స్రవించబడుటను ఏమంటారు [ ]
(a) బాష్పోత్సేకం (b) బిందుస్రావం (c) మకరందస్రావం (d) ఏదీకాదు

8. దృఢకణజాలంలో కణకవచాలలో ఏ పదార్థంతో సంశ్లేషితమై ఉంటాయి [ ]
(a) లిగ్నిన్ (b) క్యూటిన్ (c) పెక్టిన్ (d) సుబరిన్

9. టూనికా నుండి ఏర్పడే కాండభాగం ఏది. [ ]
(a) బాహ్యచర్మం (b) వల్కలం (c) ప్రసరణకణజాలం (d) b మరియు c

10. అగ్ర విభాజ్య కణజాలములోని ప్రసరణ స్తంభ జనకం నుండి ఇది ఏర్పడును [ ]
(a) వాహికా పుంజాలు (b) అంతఃచ్ఛర్మం (c) అధశ్చర్మం (d) బాహ్యచర్మం

SECTION-B [10 x ½ = 5M]

11. అంతశ్చర్మ కణాల అడ్డుగోడలలో ఉండే మందాలను ఏమంటారు _____

12. రెండు అనుబంధ కణాలు రక్షక కణాల అక్షానికి లంబంగా కల పత్రరంధ్రాలు _____

13. క్లోరోహార మెుక్కలకు ఉదాహరణ _____

14. ఆప్టోమే అనే పేరుగల సంశ్లిష్ట కణజాలం _____

15. కణకవచం లిగ్నిన్‌తో నిర్మితమై సరళ నిర్జీవ యాంత్రిక కణజాలం _____

16. అసంగత ద్వితీయ వృద్ధిని చూపు ద్విదళ బీజ వేరు _____

17. టూనికా-కార్పస్ సిద్ధాంతాన్ని ప్రతిపాదించిన శాస్త్రవేత్త _____

18. ఆర్కిడేసి మెుక్కలలో సుగంధ తైలాలను నిల్వ చేయు గ్రంథులు _____

19. _____ మెుక్కలలో దారువు కంటే పోషక కణజాలం బాగా అభివృద్ధి చెంది ఉంటుంది.

20. దివ్వెలలో వాహికా పుంజాలను కలిగి ఉన్న మెుక్క _____

SECTION-C [5 x 1 = 5M]

1. శిలాకణాలు (2) స్రావక కణజాలం (3) కేంద్రీకృత వాహికా పుంజాలు
(4) అనైసోసైటిక్ పత్రరంధ్రాలు (5) పరిచర్మం

Govt. Degree College, Shadnagar

Dept. of Botany; Sem VII Internal Assessment-I

Name of the student: _____ HT No: _____

Section-A Multiple choice Questions [10×½=5M]

1. కణజాల వర్ధనంలో అధికంగా వాడే ఆమైనో ఆమ్లం ఏది [ ]
(a) లైసిన్ (b) వెలైన్ (c) గ్లైసిన్ (d) మిథియోనిన్

2. కణజాల వర్ధనంలో విరివిగా ఉపయోగించే విటమిన్ ఏది. [ ]
(a) B_1 (b) B_2 (c) B_{12} (d) B_6

3. కణజాల వర్ధనంలో కాండ విభేదనను ప్రేరేపించే ఫైటో హార్మోన్ ఏది? [ ]
(a) లిక్సిన్ (b) జిబ్బరిల్లిన్ (c) సైటోకైనిన్ (d) అబ్సైసిక్ ఆమ్లం

4. వీత్రనాలలో సుప్తావస్థ ఏ వర్ధనం ద్వారా తొలగించవచ్చు [ ]
(a) పిండ వర్ధనం (b) మొగ్గ వర్ధనం (c) అండాశయ వర్ధనం (d) పైవన్నీ

5. వర్ధన యానకంలో ఉపయోగించే ముఖ్యమైన సైటోకైనిన్ ఏది. [ ]
(a) IBA (b) NAA (c) 6 BAP (d) 2,4-D

6. వర్ధనంలో కాలస్ పెరుగుదలను ప్రోత్సహించటానికి ఏ పదార్థాలు కలుపుతారు [ ]
(a) కొబ్బరినీరు (b) ఈస్ట్ పిండి (c) పుచ్చకాయ రసం (d) పైవన్నీ

7. కణజాల వర్ధన యానకంలో ఉండవలసిన pH విలువ ఎంత [ ]
(a) 2-4 (b) 5-6 (c) 7 (d) 8-9

8. వేరు వర్ధనాన్ని ప్రథమంగా ఏ మొక్కలో జరిపారు. [ ]
(a) గోధుమ (b) టొమాటో (c) ఆస్పరాగస్ (d) ఆస్పరాగస్

9. పిండ వర్ధనంను ప్రథమంగా నిర్వహించిన శాస్త్రవేత్త ఎవరు. [ ]
(a) మహేశ్వరి (b) హానింగ్ (c) జాకసన్ (d) ఓవర్‌బెక్

10. కణజాల వర్ధనంలో ఉపయోగించే కార్బోహైడ్రేట్ ఏరూపంలో సరఫరా చేస్తారు [ ]
(a) మాల్టోజ్ (b) సుక్రోజ్ (c) లాక్టోజ్ (d) గ్లూకోజ్

SECTION-B Fill in the blanks [10×½=5M]

1. ఫెర్న్ పత్రాలపై సిద్ధబీజాశయాలు ఏర్పడే విధానాన్ని _____ ద్వారా గమనించవచ్చు.
2. యానకం పాత్రలను సూక్ష్మజీవరహితం చేయడానికి _____ ద్రావణాన్ని ఉపయోగిస్తారు.
3. కణజాల వర్ధనంలో ముఖ్యమైన అనుసూటుకంగా ఉపయోగించే అగార్ _____ నుండి లభిస్తుంది.
4. యానకంలో చిన్న పరీక్షనాళికలను _____ ఉష్ణోగ్రత వద్ద ఆటోక్లేవ్ చేయాలి.
5. కణజాల వర్ధనంలో ఉపయోగించే మొక్క పదార్థాలను సూక్ష్మ జీవ రహితం చేయడానికి _____ ద్రావణాన్ని ఉపయోగిస్తారు.
6. ఇనాక్యులేషన్ ఛాంబరును సూక్ష్మ జీవ రహితం చేయడానికి _____ కాంతిని ఉపయోగిస్తారు
7. క్రాండాగ్రం నుండి శాఖీయ కొమ్మలు వృద్ధి చెందటంలో _____ వృద్ధి నియంత్రకం ప్రోత్సహిస్తుంది.
8. శాఖీయ కణాల నుండి జీవ పదార్థాలను వేరు పరచి, వాటి సంయోగం ద్వారా సంకర మొక్కలను ఉత్పత్తి చేసే ప్రక్రియను _____ అంటారు.
9. _____ ద్వారా అరుదైన మొక్కల వ్యాప్తిని జరపవచ్చు.
10. ఫలం అభివృద్ధి పై పుష్పభాగాల ప్రభావంను _____ ద్వారా తెలుసుకొనవచ్చును.

SECTION-C [5×1=5M]

(1) పత్ర వర్ధనం (2) పరాగకోశ వర్ధనం (3) జీవపదార్థక వర్ధనం (4) వేరు వర్ధనం ఉపయోగాలు (5) ఇనాక్యులేషన్.

Government Degree College, Shadnagar

B.Sc. II Yr Sem IV Internal Assessment – II (2021-22)

DEPARTMENT OF BOTANY

(Max. Marks-20)

SECTION –A (Marks=5M)

1. One molecule of glucose utilises how many oxygen molecules when it undergoes glycolysis. ( )

   (a) 0 (b) 1 (c) 16 (d) 38

2. Where does Krebs cycle occur in a cell. ( )

   (a) mitochondria (b) nucleus (c) golgi complex (d) centrosome.

3. Natural auxin present in plants is_____. ( )

   (a) 2, 4-D (b) NAA (c) IAA (d) IBA.

4. The hormones which resulted after the Avena curvature test. ( )

   (a) Gibberillins (b) Cytokinins (c) Ethylene (d) Auxins

5. Lack of chlorophyll in the leaves is due to the deficiency of which element. ( )

   (a) Calcium (b) Magnesium (c) Sodium (d) Silicon

6. Which hormone quickens the ripening of fruits. ( )

   (a) ABA (b) Auxins (c) Cytokinins (d) Ethylene

7. The plants which exhibit Kranz anatomy. ( )

   (a) ABA (b) Auxins (c) Cytokinins (d) Ethylene

8. The cells when placed in____solution show cytoplasmic contraction. ( )

   (a) Hypertonic (b) Isotonic (c) Hypotonic (d) pure water

9. What are the protein catalysts which control biological activities called as_____. ( )

   (a) Enzymes (b) Hormones (c) Mineral nutrients (d) steroids

10. How many ATP are formed from the cytoplasmic NADH_____. ( )

    (a) 2 (b) 4 (c) 6 (d) 8

SECTION –B (Marks=5M)

1. The first formed stable product in Calvin's cycle is_____.
2. The primary acceptor of CO_2 in CAM plants is_____.
3. The first stable product in C4 plants is_____.
4. The number of ATP utilized in glycolysis is_____.
5. The respiratory quotient of carbohydrates is_____.
6. The Photo System that takes part in cyclic photophosphorylation is_____.
7. The phytohormone which promotes dormancy is_____.

8. The element which is the main component in chlorophyll is_____.

9. The reaction centre of photosystem II is_____.

10. The CO_2 fixation in CAM plants is done by_____.

SECTION –C (Marks=5M)

(a) Kranz anatomy (b) Nitrogen fixation (c) Auxins (d) Glycolysis (e) Enzymes.

SECTION –D (Marks=5M)

Assignment

Government Degree College, Shadnagar

B.Sc. I Yr Sem II Internal Assessment – II (2021-22)

DEPARTMENT OF BOTANY

(Max. Marks-20)

SECTION –A (Marks=5M)

1. In an ecosystem_____is always unidirectional. ( )

(a) Energy flow (b)Food chain (c) a&b (d)None

2. In xerosere the pioneer plants are_____. ( )

(a) Trees (b) Shrubs (c) Crustose lichens (d)herbs

3. Cremocarp is the fruit characteristic fruit of the family_____. ( )

(a) Mimosaceae (b) Asclepiadaceae (c) Apiaceae (d) Lamiaceae

4. The gamopetalae family which is having didynamous stamens. ( )

(a) Lamiaceae (b) Asteraceae (c) Cucurbitaceae (d) Solanaceae

5. The 'S' shaped syngenacious stamens are seen in the family_____. ( )

(a) Apiaceae (b) Asteraceae (c) Lamiaceae (d) Cucurbitaceae

6. The family which contains citrus species. ( )

(a) Fabaceae (b) Rutaceae (c) Poaceae (d) Asteraceae

7. In this family the pollination is done by Piston mechanism. ( )

(a) Fabaceae (b) Annonaceae (c) Rutaceae (d) Lamiaceae

8. Perianth is_____. ( )

(a) Petals (b) Sepals (c) Stamens (d) a &b

9. The botanical name of Indian Rose wood is_____. ( )

(a) Indigofera tinctoria (b) Dalbergia latifolia (c) Pterocarpus marsupium (d) Tectona grandis

10. The translator is seen in which plant. ( )

(a) Brassica (b) Calotropis (c) Mango (d) Dolichos

SECTION –B (Marks=5M)

1. Lever mechanism of pollination is seen in the plants of the family_____.

2. In Asclepiadee the stamens at maturity form a structure known as_____.

3. The type of inflorescence seen in the Asteraceae members is_____.

4. Standard and keel petals are seen in the family_____.

5. Gaddi chemanthi botanical name is_____.

6. The complexity of foo chains is known as_____.

7. The plant succession occurring in a water body is called as_____.

8. When the depth of the lake is 2-4 feet_____plants enter the lake.

9. In the floating plants like Nelumbium the stomata are present in_____epidermis only.

10. The food chain which starts with producers is called as_____.

SECTION –C (Marks=5M)

(a) Food web (b) Moss stage (c) Crustose lichen stage (d) Food chain (e) Gynostegium

SECTION –D (Marks=5M)

Assignment

Govt. Degree College, Shadnagar

B.Sc. I Yr Sem II Internal Assessment – I (2021-22)

DEPARTMENT OF BOTANY

(Max. Marks-20)

SECTION –A **(Marks=5M)**

1. In Gymnosperms name the plant which has winged pollen grains.
   (a) Cycas. (b) Pinus (c) Gnetum (d) None [ ]
2. What is the state of endosperm in Gymnosperms.
   (a)Triploid (b) Diploid (c) Monoploid (d) Polyploid [ ]
3. The branches which are found in the axils of scale leaves of Pinus are_____.
   (a) Short branches (b) Long branches (c) both (d) None. [ ]
4. Mycorhizal roots are found in_____.
   (a) Cycas. (b) Gnetum (c) Pinus (d) None [ ]
5. In which of the following endosperm is formed before fertilization.
   (a) Gymnosperms (b) Angiosperms (c) Pteridophytes (d) All the above. [ ]
6. The author of the book "Die nature lichen pflazen familien is _____
   (a) Engler & Prantl (b) Bentham & Hooker (c) Linnaeus (d) Eichler. [ ]
7. What are the perianth of Poaceae called as_____.
   (a) Lodicules (b) Rostellum (c) Scutellum (d) Pappus. [ ]
8. Binomial nomenclature was introduced by____.
   (a) Linnaeus (b) Theophrastus (c) Gaspard Bauhin (d) Darwin. [ ]
9. In which of the following family the fruit is of cremocarp.
   (a) Mimosaceae (b) Apiaceae (C) Caesalpinaceae (d) Lamiaceae [ ]
10. Which of the following possess ruminate endosperm.
    (a) Fabaceae (b) Annonaceae (c) Asteraceae (d) Apiaceae [ ]

SECTION –B **(Marks=5M)**

1. Whose classification is based on Eichler's classification._____.
2. The botanical name of custard apple is_____.
3. The pollination mechanism in Lamiaceae is known as_____.
4. Engler and Prantl system of classification is_____system of classification.
5. Standard, wing and keel petals are present in the flower of_____family.
6. The botanical name of neem is_____.
7. The winged pollen are present in_____.
8. The book written by Bentham & Hooker is_____.
9. The dispersal of pollen grains in Pinus is called as_____.
10. Pinus needle shows_____plant characters.

SECTION –C **(Marks=5M)**

1. Orthotropous ovule. 2. Haplochelic stomata 3. Monoxylic xylem 4. Moulds 5. Isotype

SECTION –D **(Marks=5M)**

Assignment

Govt. Degree College, Shadnagar

B.Sc. II Yr Sem III Internal Assessment – I (2021-22)

DEPARTMENT OF BOTANY

(Max. Marks-20)

SECTION –A **(Marks=5M)**

1. Which RNA carries amino acids to m-RNA during protein synthesis .
   (a) M RNA (b) t RNA (c) r RNA (d) None [ ]
2. Who proposed "Sandwich model "?
   (a) Robertson (b) Hoffman (c) Singer (d) Davidson [ ]
3. The dihybrid ratio of complimentary genes is ____.
   (a) 12:3:1 (b) 15:1 (c) 9:3:3:1 (d) 9:7 [ ]

4. The shifting of a part of one chromosome to another non homologous chromosome is known as____.

   (a) Duplications (b) Translocation (c) Deletions (d) Inversions [ ]

5. Organisms having more than two haploid sets of chromosomes are called_____.

   (a) Polyploids (b) Monosomic (c) Nullisomic (d) Hypoploidy [ ]

SECTION –B (Marks=5M)

1. Chromosomes which remain condensed during interphase is called_____.

2. Purines are_____.

3. Monohybrid Incomplete dominance ratio is_____.

4. Dihybrid Phenotypic ratio is_____.

5. If one extra chromosome is added to the diploid it is called_____.

SECTION –C (Marks=5M)

1. Linkage 2.Test cross 3. Epistasis 4. Mitosis 5. Plasmid.

SECTION –D (Marks=5M)

ASSIGNMENT

Govt Degree College, Shadnagar

Internal Assessment, Department of Botany B.Sc {B.Z.C& B.Z.S.} III year

Bio Diversity & Human Welfare

Name of the student_____Hall Ticket No:_____

Multiple choice questions **10x1/2=5M**

1. ___refers to the protection of biodiversity for its sustainable use ( )

a)Preservation b)Conservation c) Rehabilitation d) Biotransformation

2.Which of the following is an in-situ method of conservation?_____ ( )

a)Gene Bank b)Sacred Groves c)Cryopreservation d)Botanical Garden

3.The basic unit for conservation of genetic diversity is_____.( )

a)Allele b)Organisms c)Population d)Biome

4. Species which protect other species and need much space are known as_____ ( )

a)Umbrella species b) Charismatic Species c)Indicator Species d) Recreational

5. _____is an intro technique fpr collection and storage of germplasm ( )

a)Thawing b)Centrifugation c)Tissue culture d) None

6. These types of forests are found in western extent of Himalaya's ( )

a) Alpine forest b) Moist tropical forests c) Montanae temperature forest d) Subalpine forest

7. Which of the following is an ornamental shrub?( )
a)Bauhinia b)Bougainvillea c)Pongamia d)Silver oak

8. Vit E is found in which of the following fruits ? ( )

a)Kiwi b)Avocado c)Cranberries d) all of the above

9. Which among the following is the most valuable timber yielding plants of family Verbenacaeae( )

a)Indian rose wood b)Teak c)Red sanders d) Nallamaddi

10. Which of the following fruits or nuts does not belong to family Anacardiaceae? ( )

a) Mango b) Cashewnut c)Pistacho Nut d)Banana

Fill in the blanks **10x1/2=5M.**

1. Species which are sensitive to disturbances and human interference are known as_____

2. The seed which can be store for longer duration are known as_____seeds

3. _____are highly restricted areas for conservation of flora , fauna and landscape

4. Plants contribute about_____of world 's gross Domestic product (GDP).

5. _____city is also known as green city

6. Apple belongs to family _____

7. Ornamental plants are cultivated for---------- --.purpose

8. Example of avenue trees._____.

9 Forest cover_____% of land in India

10are the frozen vaults meant for preserving the genetic material

Short answer questions **5X1=5 Marks**

1. IUCN

2. Species diversity

3. Sacred grove

4. Pollen banks

5. Sanctuaries

Govt Degree College, Shadnagar

Internal Assessment, Department of Botany B.Sc {B.Z.C} IIyear

Anatomy & Embryology Paper III

Name of the student_____Hall TicketNo:_____

Multiple choice questions **10x1/2=5M**

1. Who is the Father of Indian Angiosperm Embryology____ ( )

a) P. Maheshwari b) R.M kapil c) Venkata rao d)B.G.L Suang

2. The sporangia in which microsperos are produced _____ ( )

a)Mega sporangia b) Micro sporangia c) Oospore d)Egg

3.The stark of ovule is called_____.( )

a)chalaza b)Ferniculus c)Integuments d)Ovary

4.The single cotyledon of monocot embryo is called_____ ( )

a)Aril b)Suspensor c) Scutellum d) Caruncle

5. Ovule in which micropyle , chalaza &funiculus are arranged in straight line ( )

a)Orthotropous b)Anatropous c)Campylotropous d)Circinotropous

6.Polygonum type of embryo is ( )

a)Monosporic type b)Bisporic c)Tetrasporic d) None

7.The process of transfer of pollen grains from anther to stigma is called ( )
a)Fertilization b)Pollination c)Embryos d)None

8. The arrangements of male & female reproductive organs at different levels in a bisexual flower is called ( )

a)Hetrogamy b) Dichogamy c) Protogyny d) Protandry

9.tranfer of pollen grains yhrough wing is known as _____ ( )

a) Entemophyly b)Hydrophyily c)Anemophily d)Hydrophyly

10. The transfer of pollen grains from the anther of an flower to the stigma of another flower_____ ( )

a) Cross pollination b) Self Pollination c) Xenogamy d)None

_

Fill in the blanks **10x1/2=5M.**

1. The angiosperms are characterized by presence of_____. 2.

The collective name for male reproductive structure is _____

3. The layer of cells present in inner to epidermis in anther wall is called_____.

4. The union of male & female nucleus is known as _____

5.The occurence of more than one embryo in a seed is known as_____.

6. An endosperm with uneven surface is called_____endosperm

7. In _____ovule ,the body of the ovule is bend more or less at right angle to the funicle

8. The ovules having only one integument are known as_____ovules

9. Production of unisexual flower is called _____

10. The pollen tube enters into ovule through chalaza is called_____.

Short answer questions 5X1=5 Marks.

1 Microsporogenesis

2. Tapetum

3. Double fertilization

4. Nucellar endosperm

5. Apomixis

Govt Degree College Shadnagar.

Internal Assessment, Department of Botany

B.Sc {B.Z.C & B.Z..S.} Iyear Micro Diversity of lower Plants

Name of the student_____HallTicket No:_____

Multiple choice questions **10x1/2=5M**

1. Bacteria was first observed by____ ( )

a) A.Vanleewenhoek b) Robert son c)Calvin d) None

2. Cocci cells occurs in pairs_____ ( )

a) Mono coccus b) Diplo coccus c)Strepto coccus d)Sarcina

3.Flower less plants are called_____.( )

a) Gymnospermae b) Bryophyta c) Crytogams d)Thallophyta

4. Volvox belongs to class_____ ( )

a) Chlorophyceae b)Xanthophyceae c)Pheophyceae d) Dinophyceae

5. Life cycle of Volvox is_____ ( )

a) Diplontic b) Haplontic c) Isomorphic d) None

6. Asexual reproduction by zoospores takes place during ( )

a) Favourable conditions b) Unfavourable conditions c) Rainy season d) Summer season

7. Female reproduction structure in algae is called( ) a)
(a)Oogonia b) Oospore c)Nucule d) Globule

8. Reserve food material in Ectocarpus is ( )

a) Mannitol b) Laminarin starch c)Floridean Starch d) Pyrenoids

9. Example of isomorphic alternation of generations is_____ ( )

a) Polysiphonia b)Volvox c)Ectocarpus d)Chara

10. Bacteria that grow in absence of oxygen are called_____ ( )

a) Aerobic b)Anaerobic c)Chemosynthetic d) None

Fill in the blanks **10x1/2=5M.**

1. Algae which grow in tissue of animal are__algae.

2.Study of algae is called_____

3.The_____are concerned with storage of starch

4. _____are endophytic algae living in roots of Cycas

5. The Oedogonium filaments that bears andro sporangia and oogonia are called as_____.

6.Chara is a_____algae

7. Ectocarpus shows ----------. Alternation of generations

8. Female reproductive structure in Polysiphonia is_____.

9.The life cycle of Chara is _____

10. _____derive energy by oxidation of reduced Sulphur compounds

Short answer questions **5X1=5 Marks.**

1. Autotrophic bacteria

2. Coenobium

3. Cap cells

4. Plurilocular sporangia

5. Dwarf male