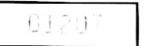
GUJCET-E-2015



Test Booklet Code



This booklet contains 48 pages.

DO NOT open this Test Booklet until you are asked to do so.

Important Instructions:

- This test consists 120 questions of Physics, Chemistry and Biology. Each question carries 1 1) mark. For each correct response the candidate will get I mark. For each incorrect response 1/4 mark will be deducted. Maximum marks is 120.
- 2) This Test is of 3 hours duration.
- Use Black Ball Point Pen only for writing particulars on OMR Answer Sheet and marking 3) answers by darkening the circle 4.9.
- Rough work is to be done on the space provided for this purpose in the Test Booklet only. 4)
- On completion of the test, the candidate must handover the Answer Sheet to the Invigilator 5) in the Room / Hall. The candidates are allowed to take away this Test Booklet with them.
- The CODE for this Booklet is C. Make sure that the CODE printed on the Answer Sheet is the 6) same as that on this booklet. In case of discrepancy, the candidate should immediately report the matter to the Invigilator for replacement of both the Test Booklet and the Answer Sheet.
- The candidate should ensure that the Answer Sheet is not folded. Do not make any stray marks 7) on the Answer Sheet.
- Do not write your Seat No. anywhere else, except in the specified space in the Test Booklet / 8) Answer Sheet.
- Use of White fluid for correction is not permissible on the Answer Sheet. 9)
- Each candidate must show on demand his / her Admission Card to the Invigilator. 10)
- No candidate, without special permission of the Superintendent or Invigilator, should leave his 11) /her seat.
- Use of Manual Calculator is permissible. 12)
- The candidate should not leave the Examination Hall without handing over their Answer Sheet 13) to the Invigilator on duty and must sign the Attendance Sheet (Patrak - 01). Cases where a candidate has not signed the Attendance Sheet (Patrak - 01) be deemed not to have handed over the Answer Sheet and dealt with as an unfair means case.
- The candidates are governed by all Rules and Regulations of the Board with regard to their 14) conduct in the Examination Hall. All cases of unfair means will be dealt with as per Rules and Regulations of the Board.
- No part of the Test Booklet and Answer Sheet shall be detached under any circumstances. 15)
- The candidates will write the Correct Test Booklet Code as given in the Test Booklet / Answer 16) Sheet in the Attendance Sheet (Patrak 01)

Candidate's Name: DHRWYISHA													
icte:The	Information	provided	here	is	only	for	reference	.It	may	vary	the	Orig	na

PHYSICS

- One moving electron when comes closer to other stationary electron, then
 its kinetic energy and potential energy respectively _____ and _____.
 - (A) increases, increases
- (B) increases, decreases
- (C) decreases, increases
- (D) decreases, decreases
- 2) An inclined plane of length 5.60 m making an angle of 45° with the horizontal is placed in an uniform electric field E = 100 Vm⁻¹. A particle of mass 1 kg and charge 10⁻² C is allowed to slide down from rest position from maximum height of slope. If the co-efficient of friction is 0.1, the time taken by the particle to reach the bottom is ______.
 - (A) 1 s

(B) 1.41 s

(C) 2s

- (D) None of these
- Charges 1 μc are placed at each of the four corners of a square of side $2\sqrt{2}$ m. The potential at the point of intersection of the diagonals is $(K = 9 \times 10^9 \text{ SI unit})$
 - (A) $18 \times 10^{1} \text{ V}$

(B) 1800 V

(C) $18\sqrt{2} \times 10^3 \text{ V}$

(D) None of these

K

- A point charge q is situated at a distance r on axis from one end of a thin conducting rod of length L having a charge Q[Uniformly distributed along its length]. The magnitude of electric force between the two is _____.
 - KQq

(B) $\frac{2KQ}{r(r+L)}$

(C) $\frac{KQq}{r(r-L)}$

(D) $\frac{KQq}{r(r+L)}$

(Space for Rough Work)



9×109×10-6×10-6

IHC.

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٦	27		

) | | | |

5) If alpha particle and deutron move with velocity v and 2v respectively, the ratio of their de - Broglie wave length will be _____.

(A) 2:1

(B) 1:√2

(C) 1:1

(D) √2:1

6) de - Broglie wave length of atom at TK absolute temperature will be

(A) $\frac{h}{\sqrt{3mKT}}$

 $\frac{h}{mkT}$

(C) $\frac{\sqrt{2mKT}}{h}$

(D) √2*mKT*

7) If the wave length of light is 4000A°, then the number of waves in 1 mm length will be _____. $\tilde{10}^{9}$ m $\lambda = 4000$

(A) 2500

(B) 25

(C) 250

(D) 25(X)()

8) The frequencies of X rays, γ rays and Ultra violet rays are respectively p, q and r then

(A) p > q, q > r

(B) p < q, q > r

(C) p < q.q < r

(D) p > q, q < r

9) Photons having energy 1eV and 2.5 eV successively incident on a metal, having work function is 0.5 eV. The ratio of maximum speed of emitted electrons is

(A) 2:1

LUS) 1:2

(C) 3:1

(D) 1:3

(Space for Rough Work)

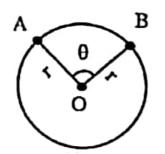
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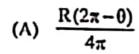
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GUJCET-E-2015 BOOKLET C 10) A and B are two points on a uniform ring of radius r. The resistance of the ring is R. $\angle AOB = \theta$ as shown in the figure. The equivalent resistance between points A & B is _





(C)
$$R\left(1-\frac{\theta}{2\pi}\right)$$

(B)
$$\frac{R\theta}{2\pi}$$
(D) $\frac{R}{4\pi^2}(2\pi - \theta)\theta$

11) Two wires of equal length and equal diameter and having resistivities ρ_1 and p, are connected in series. The equivalent resistivity of the combination

$$(A) \quad \frac{\rho_1 + \rho_2}{2}$$

$$(C) \quad \frac{\rho_1 \rho_2}{\rho_1 + \rho_2}$$

(D)
$$\sqrt{\rho_1\rho_2}$$

(Space for Rough Work)

12) Match the following two columns.

	Column I		Column II
a)	Electrical resistance	p)	ML ³ T ⁻³ A ⁻²
b)	Electrical potential	- q)	ML°T°1A-2
c)	Specific resistance	(2)	ML2T-3A-1
d)	Specific conductance.	5)	None of these

- (A) a-q, b-r, c-p, d-s
- (B) a-q, b-s, c-r, d-p
- (C) a-p, b-q, c-s, d-r
- $\sqrt{(D)}$ a-p, b-r, c-q, d-s

,	MLT O
1=1 =	MEJ

13) Angle of minimum deviation for a prism of refractive index 1.5 is equal to the angle of prism of given prism. Then the angle of prism is (sin 48°36' = 0.75)

R

(A) 80°

(B) 41°24'

(C) 60°

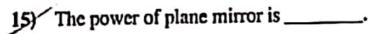
- (D) 82°48'
- 14) A ray of light passes from a medium A having refractive index 1.6 to the medium B having refractive index 1.5. The value of critical angle of medium A is ______.
 - (A) $\sin^{-1}\sqrt{\frac{16}{15}}$

(B) $\sin^{-1}\left(\frac{16}{15}\right)$

(C) $\sin^{-1}\left(\frac{1}{2}\right)$

(D) $\sin^{-1}\left(\frac{15}{16}\right)$

(Space for Rough Work)



(A) 0

JBJ ∞

(C) 2D

(D) 4D

16) Light waves travel from optically rarer medium to optically denser medium. Its velocity decreases because of change in ______

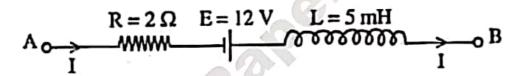
(A) wavelength

(B) frequency

(C) amplitude

(D) phase

17) The Network shown in Figure is a part of the circuit. (The battery has negligible resistance)



At a certain instant the current I = 2 A and it is decreasing at the rate of 10^2 As⁻¹. What is the potential difference between the points B and A?

(A) 8.5 V

(8.0 V

(C) 10 V

(D) 15 V

18) A rod of 10 cm length is moving perpendicular to uniform magnetic field of intensity 5 x 10⁻¹ Wb/m². If the acceleration of the rod is 5 m/s², then the rate of increase of induced emf is _____.

(A) 25 × 10⁻⁴ Vs

(B) $2.5 \times 10^{-1} \text{ Vs}^{-1}$

(C) $20 \times 10^{-1} \text{ Vs}$

= بخ

(D) $20 \times 10^{-4} \text{ Vs}^{-1}$

(Space for Rough Work)

B=5×104.

٦- ٣

19)	A current of 25/x Hz frequency is passing through an A.C. circuit having
	series combination of $R = 100 \Omega$ and $L = 2 H$, the phase difference between
	voltage and current is

(A) 60°

(B) 90°

(C) 30°

(D) 45°

20) In A.C. circuit having only capacitor, the current _____

- (A) leads the voltage by ½ in phase
 - (B) lags behind the voltage by $\frac{\pi}{2}$ in phase
- (2) leads the voltage by π in phase
 - (D) lags behind the voltage by π in phase

21) An alternating voltage given as V = 100√2 sin 100t volt is applied to a capacitor of 1 μF. The current reading of the ammeter will be equal to _____ mA.

- (A) 20
- = 145
- (B) 10

- (C) 40
- V=
- (D) 80

22) The distance of the closest approach of an alpha particle fired at a nucleus with kinetic energy K is r_o. The distance of the closest approach when the operaticle is fired at the same nucleus with kinetic energy 2K will be

(A) 4r₀

(B) $\frac{r_0}{2}$

 $(40) \frac{r_0}{4}$

(D) $2r_0$

(Space for Rough Work)

- Number of spectral line in hydrogen atom is
 - A) 8

(B) 6

(C) 15

- (D) α
- A radioactive element X disintegrates successively as under 24)

$$X \xrightarrow{\beta^-} \overset{160}{\underset{1}{\cancel{\times}}} X_1 \xrightarrow{\alpha} \overset{176}{\underset{1}{\cancel{\times}}} X_2 \xrightarrow{\beta^-} \overset{190}{\underset{1}{\cancel{\times}}} X_3 \xrightarrow{\alpha} \overset{192}{\underset{1}{\cancel{\times}}} X_4$$

If atomic number and atomic mass number of X are respectively 72 and 180, what are the corresponding values for X4?

(A) 69, 172

(B) 69, 176

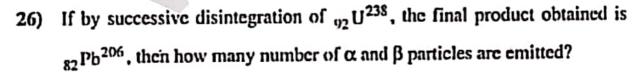
(C) 71, 176

- (0) 70, 172
- The energy released by the fission of one uranium atom is 200 MeV. The 25) number of fission per second required to produce 6.4 W power is
 - (A) 2×10^{11}

(B) 10¹¹

(C) 10¹⁰

(D) 2×10^{10}



(A) 6 and 8-

(B) 8 and 6

(C) 12 and 6

(D) 8 and 12

(Space for Rough Work)

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GUICET-E-2015 BOOKLET

(P.T.O.)

- A change of 0.04 V takes place between the base and the emitter when an 27) input signal is connected to the CE transistor amplifier. As a result, 20 µA change take place in the base current and a change of 2 mA takes place in the collector current. Find the input resistance and A.C. current gain.
 - (A) $1k\Omega$, 100

(B) 2kΩ, 100

(C) 2kΩ, 200

- (D) 1kΩ, 200
- A plane polarized light is incident normally on a tourmaline plate. Its 12 28) vectors make an angle of 60° with the optic axis of the plate. Find the percentage difference between initial and final intensities.

(B) 25%

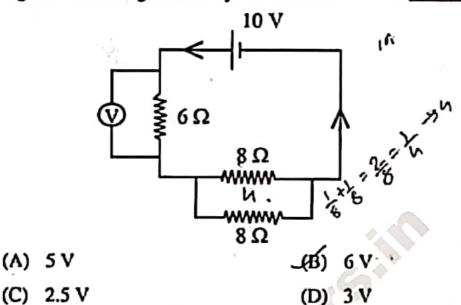
(C) 75%

- (D) 90%
- Light of wave length \(\lambda\) is incident on slit of width d. The resulting diffraction 29) pattern is observed on a screen placed at distance D. The linear width of central maximum is equal to width of the slit, then D = _
 - (A) $\frac{2\lambda^2}{d}$ (C) $\frac{d}{1}$

(Space for Rough Work)

30)	In a	N-P-N tr	ansistor abo	out 1010 electron Then I _E =	s enter the en	mitter in	2μs, who	n it_
	(A)	400			4	9	A COLOR	
	(B)	200			Œ	0.4	10/	.16
r	œ	800				10 ty	+10 to	307
Ì	(D)	1600				1 1 1 1 1 1 1 1 1 1	" +10	
31)	The The	cffective magnetic	length of a r moment, if i	محرہ nagnet is 31.4 c t is bent in the fo	m and its pol	e strengt circle is _	h is 0.8 A	am. m².
	(A)	1.2			. 49	258		
	(B)	1.6				1		u±08
	JC)	0.16	Mr.		3	m=		Q=0314.
	(D)	0.12		8,00	7	111		0.98
32) Equal currents are passing through two very long and straight parallel wires in the same direction. They will								
ι	JK)	attract e	ach other			1	.[
	(B)	repel ea	ch other			\bigcap	٩	
	(C)	lean tow	vards each o	ther			1	
	(D)	neither a	attract nor re	epel each other		·		
			(Spa	ce for Rough	Work)	To a selfer (g		
			(Opai	ce roi mough	- John			

A voltmeter of a very high resistance is joined in the circuit as shown in figure. The voltage shown by this voltmeter will be _



G=502 v= 8 R: 3950

A galvanometer of resistance 50 Ω is connected to a battery of 8 V along with a resistance of 3950 Ω in series. A full scale deflection of 30 div is obtained in the galvanometer. In order to reduce this deflection to 15 division. the resistance in series should be_

(A) 1950

(A) 5 V

7900 (B)

(C) 2000 (D) 7950

At a place on Earth, the vertical component of Earth's magnetic field is \square times its horizontal component. The angle of dip at this place is __

(B) 30°

(C) 45°

(D) 0°

(Space for Rough Work)

-tano = 13

36)	Which gate,	gate can be obtain	ed by shorting b	oth the	input terminals of a	a NOR
	_	TOI	(B)	OR		
VisionPapers.ii	(C) A		,	NAN	ND	
37)	An opt	tical fiber can offe	r a band width of			
	(A) 1	00 GHz	·(B)	100	MHz	
	(C) 7	750 MHz	(D)	250	MHz	
38)		km	KHz frequency, $\frac{3510^8}{6^{10^5}} = 10$ $\frac{310^8}{6^{10^5}} = 10$ (B)	20	imum length of ant	enna is
39)	poten	tial of 10 Volt. As	suming the drop	to be sp	iltaneously with the pherical, if all the c p, then its potential	harged
	(A)	40	(B	90		
	(C)	160	(D) 10		
40)		n 1019 electrons are			metal plate through	h some
	(A)_) -1.6	C	
	(C)	1010 C	Œ) 10-1	°C	
		(Sp	ace for Rough	Work	()	
		مروا	4 1.6 X10:49			

GUJCET-E-2015 BOOKLET C

CHEMISTRY

- 41) Which method is used to get very pure germanium used in semiconductor?
 - (A) vapour phase refining
 - (B) electrolysis
 - (C) liquation
 - (D) zone refining
- 42) Which product will be obtained in the following reaction?

Reaction: $P_{4(n)} + 3NaOH_{(nn)} + 3H_2O_{(n)} \rightarrow \mathcal{D}^{TH_3}$ +3NaOH₂ PO1

$$PH_{3_{(a)}} + 3NaH_2PO_{2_{(a)}} \times (B) PH_{3_{(a)}} + 3Na_2HPO_{2_{(a)}} \times$$

(C)
$$\frac{2PH_{3(1)} + 3Na_2HPO_{2(10)}}{}$$
 (D) $2PH_{3(1)} + 3NaH_2PO_{3(10)}$

- 43) The molecular formulae for phosgene and tear gas are ____ and ___ respectively.
 - (A) COCl₂ and CCl₂NO₂× (B) SOCl₂ and CCl₂NO₂ ×
 - (C) COCl₂ and CCl₃NO₂ (D) SOCl₃ and CCl₃NO₃
- 44) Which of the following mixture is called Aquaregia?
 - (A) Three parts of dil. HCl and 1 part of conc. HNO,
 - (B) Two parts of conc. HCl and two parts of conc. HNO3
 - (C) Three parts of conc. HCl and 1 part of dil. HNO,
 - (D) Three parts of conc. HCl and 1 part of conc. HNO,

(Space for Rough Work)

45)	Wh	ich of the following is allylic ha		-1
	(A)	(I - bromo ethyl) benzene	4	(*
	(B)	Benzyl chloride		
	(C)	1 - bromo benzene		
	(D)	3 - chloro cyclo hex-1-ene		
46)		of the reagent is used for dehydr at will be the weight of the main		genation of 6.45 gm CH ₃ CH ₂ Cl. obtained?
	[At.	mass of H, C and Cl are 1, 12 &	35.5	gm/mole-1 respectively]
	(A)	1.4 gm	(B)	0.7 gm
	(C)	2.8 gm	(D)	5.6 gm
			0	
47)	Nam	e the following reaction CH, CH,	CI+N	InIacetone CH,CH,I+NaCl
	(A)	Frinkel-stein reaction		
	(B)	Swartz reaction		
	(C)	Wurtz reaction		
**	(D)	Hell-Volhard Zelinsky reaction		
		113		
48)	Whic	h reagent is used for bromination	ı of m	ethyl phenyl ether?
	(A)	Br ₂ / CH ₃ COOH		
	(B)	Br ₂ / Red P		
	(C)	Br ₂ / FeBr ₃		
	(D)	HBr/∆		
		(Space for Roug	h W	ork)

- 49) Which of the following acid does not have -COOH group?
 - (A) Picric acid

(B) Ethanoic acid

(C) Benzoic acid

- (D) Salicylic acid ~
- 50) Which of the following statement is not correct?
 - (A) Phenol is neutralised by sodium carbonate
 - (B) Phenol is used to prepare analgesic drugs
 - (C) Solubility of phenol in water is more than that of chlorobenzene.
 - (D) Boiling point of o-nitrophenol is lower than that of p-nitrophenol
- 51) Total order of reaction $X + Y \rightarrow XY$ is 3. The order of reaction with respect to X is 2. State the differential rate equation for the reaction.

$$(A) -\frac{d[X]}{dt} = K[X]^{0}[Y]^{1}$$

(B)
$$-\frac{d[X]}{dt} = K[X]^3[Y]^n$$

$$(C) -\frac{d[X]}{dt} = K[X]^2[Y]$$

(D)
$$-\frac{d[X]}{dt} = K[X][Y]^2$$

- 52) X Skp-1 Y Skp-11 Z is a complex reaction. Total order of reaction is 2 and Step II is slow step. What is molecularity of Step-II?
 - (A) 2

/**(B**) 1

(C) 3

(D) 4

(Space for Rough Work)

53) Reaction $3CIO^{-} \rightarrow CIO_{3}^{-} + 2CI^{-}$ occurs in following two steps.

(i) $ClO^- + ClO^- \xrightarrow{K_1} ClO_2^- + Cl^-$ (Slow step)

(ii) $ClO_3^- + ClO_3^- + ClO_3^- + ClO_3^- + ClO_3^-$

then the rate of given reaction = _____.

(A) K,[C10]

- (B) K, [ClO⁻]²
- (C) K,[ClO,] [ClO]
- (D) K₂[ClO⁻]³

54) At given temperature and pressure adsorption of which gas of the following will take place the most?

(A) Di oxygen AOL

- (B) Di hydrogen H2
- (C) Ammonia NH3
- (D) Di nitrogen N2

55) Which type of colloid is the dissolution of sulphur (S_s)?

(A) Micelle

- (B) Associated colloid
- (C) Multimolecular colloid
- (D) Macromolecular colloid

56) For Adsorption phenomenon,

- (A) $\Delta H = -ve$, $\Delta S = +ve$
- (B) $\Delta H = +ve$, $\Delta S = -ve$
- (C) $\Delta H = -vc, \Delta S = -vc$
- (D) $\Delta H = +ve$, $\Delta S = +ve$

(Space for Rough Work)

- 57) Which of the following statement is incorrect for KMnO₄?
 - (A) It is used as antiseptic.
 - (B) It is an oxidising agent.
 - (C) It is used as bleaching agent in textile industries.
 - (D) It is dark purple coloured amorphous substance.
- 58) Which of the following ion has the maximum theoretical magnetic moment?
 - (A) Cr3+

(agB) Fe3

(C) Ti3+

- JO) Co3
- 59) Which of the following oxide has the maximum basicity?
 - (A) Pr₂O₃

(B) La₂O₃

(C) Sm₂O₃

- **√**(D) Gd₂O₃
- 60) Which of the following spectrochemical series is true?
 - (A) $SCN^- < F^- < NH$, < cn < CO
 - (B) SCN < NH, < F < en < CO
 - (C) $SCN^- < F^- < en < NH_3 < CO$
 - (D) $SCN^- < F^- < en < CO < NH$,

(Space for Rough Work)

(A) [Co(NH ₃) ₆] ³ , (B) [Ni (CO) ₄] (C) [Ni (CN) ₄] ² - (D) [NiCl ₄] ² - (E) Both [Ni (CO) ₄] and [Ni(CN) ₄] ² - are diamagnetic. The types of hybridisation of Ni in these complexes are & respectively. (A) sp ³ , dsp ² (B) sp ³ , sp ³ (C) dsp ² , sp ³ (D) dsp ² , dsp ² (A) CH ₃ ·CH ₂ ·CH.COOH > CH ₃ ·CH·CH ₂ ·COOH > CH ₂ ·CH ₂ ·CH ₂ ·COOH (B) Cl ₃ ·C·COOH > Cl ₄ ·CH·COOH > Cl·CH ₂ ·COOH (C) Cl (B) Cl ₃ ·C·COOH > Cl ₄ ·CH·COOH > Cl·CH ₂ ·COOH (C) H·COOH > CH ₃ ·CH ₂ ·COOH > (CH ₃) ₂ ·CH·COOH (D) CH ₃ COOH > CH ₃ ·CH ₂ ·COOH > (CH ₃) ₂ ·CH·COOH (A) CH ₂ = CH - CN (B) CH ₂ = CH - CHO (C) CH ₂ = CH - COOH (D) CH ₂ = CH - COOH	61)	Which of the following complex is	paramagnetic?
62) Both [Ni (CO) ₄] and [Ni(CN) ₄] ²⁻ are diamagnetic. The types of hybridisation of Ni in these complexes are & respectively. (A) sp ³ , dsp ² (B) sp ³ , sp ³ (C) dsp ² , sp ³ (D) dsp ² , dsp ³ [63) Which of the following order of acidic strength is not correct? (A) CH ₃ ·CH ₂ ·CH.COOH > CH ₃ ·CH·CH ₂ ·COOH > CH ₂ ·CH ₂ ·COOH Cl Cl Cl Cl Cl Cl Cl Cl Cl		(A) [Co(NH ₃) ₆] ³ *	(B) [Ni (CO) ₄]
of Ni in these complexes are & respectively. (A) sp³, dsp²		(C) [Ni (CN) ₄] ² -	(D) [NiCl ₄] ²⁻
of Ni in these complexes are & respectively. (A) sp³, dsp²			
(C) dsp², sp³ (D) dsp², dsp² (C) (A) CH₃-CH₂-CH.COOH > CH₃-CH₂-COOH > CH₂-CH₂-CH₂-COOH (B) Cl₃-C-COOH > Cl₂-CH-COOH > Cl-CH₂-COOH (C) H-COOH > CH₃-COOH > Cl-CH₂-COOH (D) CH₃-COOH > CH₃-COOH > (CH₃)-CH-COOH (E) CH₃-COOH > CH₃-COOH > (CH₃)-CH-COOH (E) CH₃-COOH > CH₃-COOH > (CH₃)-CH-COOH (E) CH₃-COOH > CH₃-CH₂-COOH (E) CH₂-CH-COOH (E) CH₂-CH-COOH	62)		
(A) CH ₃ ·CH ₂ ·CH.COOH > CH ₃ ·CH·CH ₂ ·COOH > CH ₂ ·CH ₂ ·COOH		(A) sp^3 , dsp^2	(B) sp ³ , sp ³
(A) CH ₃ ·CH ₂ ·CH.COOH > CH ₃ ·CH·CH ₂ ·COOH > CH ₂ ·CH ₂ ·CH ₂ ·COOH		(C) dsp ² , sp ³	(D) dsp ² , dsp ²
(A) CH ₃ ·CH ₂ ·CH.COOH > CH ₃ ·CH·CH ₂ ·COOH > CH ₂ ·CH ₂ ·CH ₂ ·COOH			
Cl Cl Cl Cl (B) Cl ₃ ·C·COOH > Cl ₂ ·CH·COOH > Cl·CH ₂ ·COOH (C) H·COOH > CH ₃ COOH > C ₆ H ₃ COOH (D) CH ₃ COOH > CH ₃ ·CH ₂ ·COOH > (CH ₃) ₂ ·CH·COOH 64). What is the formula of Acrolein? (A) CH ₂ = CH - CN (B) CH ₂ = CH - CHO (C) CH ₂ = CH - COOH	63)	Which of the following order of ac	idic strength is not correct?
(B) Cl ₃ ·C·COOH > Cl ₂ ·CH·COOH > Cl·CH ₂ ·COOH (C) H·COOH > CH ₃ COOH > C ₆ H ₃ COOH (D) CH ₃ COOH > CH ₃ ·CH ₂ ·COOH > (CH ₃) ₂ ·CH·COOH (A) CH ₂ = CH - CN (B) CH ₂ = CH - CHO (C) CH ₂ = CH - COOH		(A) CH ₃ ·CH ₂ ·CH.COOH > CH ₃ ·C	H-CH ₂ -COOH > CH ₂ -CH ₂ -CH ₂ -COOH
64). What is the formula of Acrolein? (A) $CH_2 = CH - CN$ (B) $CH_2 = CH - CHO$ (C) $CH_2 = CH - COOH$		(B) Cl ₃ ·C·COOH > Cl ₂ ·CH·COO	1 > CI·CH ₂ ·COOH
(A) $CH_2 = CH - CN$ (B) $CH_2 = CH - CHO$ (C) $CH_2 = CH - COOH$		(D) CH ₃ COOH > CH ₃ ·CH ₂ ·COO	H > (CH ₃) ₂ ·CH·COOH
(A) $CH_2 = CH - CN$ (B) $CH_2 = CH - CHO$ (C) $CH_2 = CH - COOH$	C (1)	When in the County of Acceloin?	
(B) $CH_2 = CH - CHO$ (C) $CH_2 = CH - COOH$	64).		
(C) $CH_2 = CH - COOH$		-	
•		(B) $CH_2 = CH - CHO$	
(D) $CH_2 = CH - CONH_2$		(C) $CH_2 = CH - COOH$	
		(D) $CH_2 = CH - CONH_2$,

(Space for Rough Work)

65)	What i	s IUPAC	name for	isophthalic a	acid?
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- Benzene 1, 2 dicarboxylic acid
 - (B) Benzene 1, 3 dicarboxylic acid
 - (C) Benzene 1, 4 dicarboxylic acid
 - (D) Benzene 1, 5 dicarboxylic acid

66) What is the name for red azo dye?

- (A) β napthyl azo benzene
- (B) p-hydroxy azo benzene
- (C) p amino azo benzene
- (D) p N, N dimethyl amino azo benzene
- 67) Which of the following is not formed by Sandmayer reaction?
 - (A) C₆H₅I

(B) C₆H₅Cl

(C) C₆H₅Br

- (D) C,H,CN
- 68) For which vitamin liver is not the source?
 - (A) Vitamin B,

(B) Vitamin - B,

رو) Vitamin - B₁₂

(D) Vitamin - H

(Space for Rough Work)

69)	In which of the following compound, all the monosaccharide units are not joined by $C_1 - O - C_4$ chain.						
	(A)	Lactose	(B)	Maltose			
	(C)	Cellulose	JB)	Amylopectin			
70)	Whi	ich of the following polyme	r is f	ormed by cationic addition			
70)		merisation reaction?	. 13 .	omica by canonic address.			
	(A)	Poly styrene	(B)	Butyl rubber			
	(C)	Teflon	(D)	PVC			
			0				
71)	Whi	ch of the following polymer is u	sed in	pigment?			
	(X)	Neoprene	(B)	Buna - S			
	(C)	Teflon	(D)	Orlon			
72)	Тор	orevent food from spoilage by mic	roorg	anism, which substance is used?			
	(A)	Ameto	(B)	Aspartame			
)C)	Salt of sorbic acid	(D)	Tetrazine			
(Space for Rough Work)							

73)	Whi	ich of the following defect	is seen in F	CO?
	JA)	Metal deficiency defect		
	(B)	Metal excess defect		
	(C)	Displacement defect		
	(D)	Impurity defect		
<i>]</i> 74)	Whi	ch of the following substa	nce possess	antiferromagnetic property?
		CrO ₂		Fe ₃ O ₄
	(C)	H³O	(D)	
75)	what	tant temperature. If 3 gm t is the weight of sucrose d a - 60 gm/mole, sucrose = 17.1 gram	of urea is of lissolved in 342 gm/mo (B)	of sucrose and urea are same at lissolved in its 1 litre solution, its 1 litre solution? le] 3.0 gram 34.2 gram
	W.:.			_
76)		ch option is inconsistant fo		
		The change in heat of dilu		
	(B)	volume of liquid solven solution.	t + volume	of liquid solute = volume of
_	SES	Solute does not undergo a	ssociation i	n solution
	(D)	Solute undergoes dissocia	tion in solut	ion

(Space for Rough Work)

	77)		Which colligative property is more useful to determine the molecular weight of the substances like proteins and polymers?			
	١.	(A)	Elevation in boiling point			
	· ·	(B)	Lowering of vapour pressure	L		
		(C)	Depression of freezing point			
		(D)	Osmotic pressure +		•	
	78) The resulting solution obtained at the end of electrolysis of conceaqueous solution of NaCl					
		(A)	turns blue litmus into red			
		(B)	turns red litmus into blue		35	
		(C)	remains colourless with phenol	phtha	lein	
	,	(JS)	the colour of red or blue litmus	does	not change	
	1	0		20	4 B C.	
	79)	Volt respectively. State the correct order for their ability to act as reducing agent.				level e-
		(A)	A>B>C	(B)	C > B > A	0
		(G)	A>B>C B>C>A	(D)	C > A > B	
	80)	Two electrolytic cells containing molten solutions of Nickel chloride & Aluminium chloride are connected in series. If same amount of electric current is passed through them, what will be the weight of Nickel obtained when 18 gm of Aluminium is obtained? (Al - 27 gm/mole, Ni - 58.5 gm/mole ¹)				
		(A)	117 gm	(B)	58.5 gm	
		(C)	29.25 gm	(D)	5.85 gm	
(Space for Rough Work)						