



University of Agriculture, Faisalabad
Entry test for Admission to the First Degree Programs

August 7, 2016 at 11:00 a.m.

Time: 90 minutes

Maximum Marks: 100

IMPORTANT INSTRUCTIONS FOR THE CANDIDATES

The candidates are given the question paper sheets of their chosen subjects combination along with an answer sheet (bubble sheet) carrying 100 bubbles in four groups i.e., 25 bubbles (squares) for each subject. They are required to **DARK SHADE the correct choice CAREFULLY within the boundary of bubble**. Calculator can be used but **MUST** not be shared with others

Please DO NOT DETACH the Bubble Sheet from the Question Paper

ENGLISH

Choose the correct answers to the UNDERLINED words

- Q. 1. Miss McCutcheon wanted to quit and go back home.
A. Earn money B. Give up
C. Teach D. Be quite
- Q. 2. I met a traveler from an antique land.
A. Unique B. Ancient
C. Part time Professor D. Visiting Meritorious Professor
- Q. 3. He had seen, perhaps, too deeply engrossed in himself.
A. Absorbed B. Busy
C. Interested D. Annoyed
- Q. 4. You have staggered by the winds of police brutality.
A. Cruelty B. Damage
C. Investigation D. Trial
- Q. 5. The children with their yellow hair screamed at the deep dome of Martian sky.
A. Yelled B. Cried
C. Looked D. Pointed to
- Q. 6. I had a weird dream one night.
A. Fading B. Happy
C. Disturbing D. Thrilling
- Q. 7. The form was singing with the clamor of the distinction.
A. Sound B. Music
C. Noise D. Melody
- Q. 8. He traged again.
A. Slept B. Pleased
C. Wept D. Cried
- Q. 9. Ellen giggles as she is given assignment.
A. Cheats B. Rejoices
C. Fades D. Rejects
- Q. 10. It is pity to see student undergoing the transfusion of blood.
A. Transfer of blood B. Impurity of blood
C. Thickness of blood D. Bleeding of blood

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- Q. 11. I began to indolently study disease generally.
 A. Lazily
 C. Quickly
 B. Gladly
 D. Indifferently
- Q. 12. Her voice sounded in my ears like a summons to damnation.
 A. Purgation
 C. Justification
 B. Purification
 D. Condemnation

Pick the correct option from the given choices to fill in the blanks

- Q. 13. He _____ his breakfast at 9-o'clock.
 A. Had
 C. Was having
 B. Would have
 D. Has had
- Q. 14. I hope they _____ the city before I reach there.
 A. Will not have left
 C. Will not be left
 B. Could not leave
 D. Might not leave
- Q. 15. I _____ him for many years.
 A. Helps
 C. Have been helping
 B. Helping
 D. Help
- Q. 16. He _____ to college daily in time.
 A. Go
 C. Going
 B. Goes
 D. Gone
- Q. 17. They _____ him two days ago.
 A. Bury
 C. Will bury
 B. Buried
 D. Had buried
- Q. 18. You cannot go out because it _____ very hard.
 A. Rains
 C. Is raining
 B. Has rained
 D. Rained
- Q. 19. I was reading a novel when they _____ to see me.
 A. Were coming
 C. Come
 B. Came
 D. Had come
- Q. 20. They always _____ back home late.
 A. Come
 C. Are coming
 B. Has been come
 D. Came
- Q. 21. If he worked hard, he _____ the examination.
 A. Will pass
 C. Would have passed
 B. Can pass
 D. Would pass
- Q. 22. Our clean environment _____ our clean habits and thoughts.
 A. Reflect
 C. Was reflecting
 B. Reflects
 D. Is reflecting
- Q. 23. They parted company _____ each other.
 A. With
 C. By
 B. From
 D. For
- Q. 24. We should not brag _____ our deeds.
 A. For
 C. Of
 B. After
 D. Off
- Q. 25. You are justified _____ claiming for your rights.
 A. Up
 C. In
 B. After
 D. With

PHYSICS

- Q. 26. Which is optical instrument?
A. Telescope
B. Galvanometer
C. Ammeter
D. Avometer
- Q. 27. The theory of wave nature of light was proposed by:
A. Thomas young
B. Huygen
C. Marwelf
D. Fresnel
- Q. 28. With the rise of temperature, the velocity of sound:
A. Decreases
B. Increases
C. Remains constant
D. Becomes zero
- Q. 29. The rotational kinetic energy of a hoop of radius "r" is given by:
A. $\frac{1}{2} mr^2 \omega^2$
B. $\frac{1}{2} r^2 \omega^2$
C. $mr^2 \omega^2$
D. $\frac{1}{2} m \omega^2$
- Q. 30. The angular acceleration is produced by:
A. Momentum
B. Pressure
C. Torque
D. Power
- Q. 31. Motion of projectile is _____ dimensional.
A. Two
B. Three
C. Four
D. None of these
- Q. 32. The value of triple point of water is given by:
A. 373.16k
B. 255.16k
C. 273.16k
D. 300.16k
- Q. 33. The resolving power of a lens is expressed by a relation?
A. $\alpha \min = 1.22 \frac{\lambda}{D}$
B. $\alpha \min = 1.22 \frac{\lambda}{D}$
C. $\alpha \min = 1.22 \lambda D$
D. $\alpha \min = 1.52 \frac{\lambda}{D}$
- Q. 34. Angular frequency is basically a characteristics of:
A. Circular motion
B. Linear motion
C. Vibratory motion
D. Elliptical motion
- Q. 35. If mass of a moving object is doubled, its K.E. becomes:
A. 2 times
B. 4 times
C. 8 times
D. 16 times
- Q. 36. Which is the average translational kinetic energy of molecules in a gas at temperature 27°C?
A. 6.21×10^{-21} J
B. 6.21×10^{-20} J
C. 6.21×10^{-22} J
D. 6.21×10^{-23} J
- Q. 37. Types of waves used in "Sonar" are:
A. Electromagnetic waves
B. Matter waves
C. Water waves
D. Sound waves
- Q. 38. The working carburetor of a car uses:
A. Equation of continuity
B. Gravitational law
C. Bernoulli's theorem
D. Stoke's theorem
- Q. 39. The weight of a man in an elevator descending with an acceleration of 4.9 ms^{-2} will become:
A. Twice
B. Half
C. Zero
D. Unchanged
- Q. 40. Which one is a scalar?
A. Length
B. Volume
C. Velocity
D. Work

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- Q. 41. Absolute uncertainty in a measuring instrument is equal to:
 A. Least count of the instrument
 B. Fractional uncertainty
 C. Accuracy
 D. Percentage uncertainty
- Q. 42. 100 radians are equal to:
 A. 57.3°
 B. 573°
 C. 5730°
 D. 5.73°
- Q. 43. 73.650 rounded off up to one decimal is:
 A. 73.6
 B. 73.7
 C. 74
 D. 73.65
- Q. 44. The range of the projectile is maximum when it is projected at an angle of:
 A. 20°
 B. 30°
 C. 45°
 D. 60°
- Q. 45. The area under the velocity time graph gives:
 A. Force
 B. Acceleration
 C. Distance
 D. Torque
- Q. 46. A body will be in translational equilibrium if:
 A. $\sum \vec{T} = 0$
 B. $\sum \vec{P} = 0$
 C. $\sum \vec{P} = 0$
 D. $\sum \vec{P}_x = 0$
- Q. 47. The dot product of a vector with itself is equal to:
 A. Zero
 B. A
 C. $2A$
 D. A^2
- Q. 48. The angular momentum $\vec{L}$ is given by:
 A. $m\vec{v}$
 B. $\vec{r} \times \vec{f}$
 C. $\vec{r} \times \vec{p}$
 D. $\vec{r} \times \vec{p}$
- Q. 49. The dimensions of kinetic energy are:
 A. ML^2T^{-2}
 B. $ML^{-1}T^{-1}$
 C. ML^2T^{-1}
 D. $\frac{1}{2}ML^2T^{-2}$
- Q. 50. An alternate unit to $kg\,ms^{-1}$ is:
 A. Js
 B. Ns
 C. Nm
 D. N

CHEMISTRY

- Q. 51. The chemical analysis in which all the elements present in a compound identified is called:
 A. Quantitative analysis
 B. Qualitative analysis
 C. Gravimetric analysis
 D. None of these
- Q. 52. Octet rule is not obeyed by during its formation
 A. NF_3
 B. CF_4
 C. PCl_5
 D. CCl_4
- Q. 53. Standard enthalpy change is measured at
 A. $298^\circ K$
 B. $273^\circ C$
 C. $273^\circ K$
 D. $373^\circ K$
- Q. 54. The pH of mixture of CH_3COONa and CH_3COOH is:
 A. 7
 B. >7
 C. <7
 D. 1
- Q. 55. Isotopes differ in number of
 A. Electron
 B. Neutron
 C. Proton
 D. Proton number

Stream No. 14: English, Physics, Chemistry, Mathematics

- Q. 56. Density of an ideal gas can be calculated by the formula
 A. $d = nRT$
 B. $d = \frac{PM}{RT}$
 C. $d = \frac{m}{V}RT$
 D. $d = \frac{P}{RT}$
- Q. 57. Stronger the oxidizing agent, greater is the
 A. Oxidation potential
 B. Reduction potential
 C. Reduction potential
 D. EMF. of cell
- Q. 58. Empirical formula of Glucose is
 A. $C_6H_{12}O_6$
 B. CH_2O
 C. CHO
 D. $C_6H_{12}O$
- Q. 59. Oxidation No. of oxygen in OF_2 is
 A. Zero
 B. $-\frac{1}{2}$
 C. $+2$
 D. $-\frac{1}{2}$
- Q. 60. The unit of rate constant for zero order reaction is
 A. $dm^3 s^{-1}$
 B. $dm^3 mole^{-1} s^{-1}$
 C. $dm^3 mole^{-1} s^{-1}$
 D. $mole s^{-1}$
- Q. 61. The reaction $2KMnO_4 + Cl_2 \rightarrow 2KMnO_4 + 2KCl$ is
 A. Chlorination of $KMnO_4$
 B. Neutralization reaction
 C. Oxidation reduction reaction
 D. Neither oxidation nor reduction
- Q. 62. The existence of an element in more than one crystalline forms is known as
 A. Isotropy
 B. Anisotropy
 C. Entropy
 D. Allotropy
- Q. 63. Sucrose is converted into glucose and fructose by enzyme catalyst called
 A. Invertase
 B. Maltase
 C. Urease
 D. Zymase
- Q. 64. Amount of NaOH required to prepare 250 cm³ of 1 M solution is
 A. 10 g
 B. 6 g
 C. 2 g
 D. 4 g
- Q. 65. Percentage of N_2 in NH_3 is
 A. $\frac{14}{17} \times 100$
 B. $\frac{14}{17} \times 100$
 C. $\frac{1}{17} \times 100$
 D. $\frac{1}{17} \times 100$
- Q. 66. Which equation correctly represents the Heisenberg's uncertainty principle?
 A. $\Delta x \Delta p = \frac{h}{4\pi}$
 B. $\Delta x \Delta p > \frac{h}{4\pi}$
 C. $\Delta x \Delta p \geq \frac{h}{4\pi}$
 D. $\Delta x \Delta p \leq \frac{h}{4\pi}$
- Q. 67. The drying agent used in a desiccators is
 A. Lithium Chloride
 B. Sodium Chloride
 C. Potassium Chloride
 D. Calcium Chloride
- Q. 68. Which one of the following is not an isomorph pair?
 A. $NaCO_3$, $CaCO_3$
 B. NaF , MgO
 C. K_2SO_4 , $K_2Cr_2O_7$
 D. Zn , Cd
- Q. 69. Molality of pure water is
 A. 1
 B. 18
 C. 55.5
 D. 5
- Q. 70. Iodine dissolves in water in the presence of KI due to formation of which of the following species?
 A. I_2
 B. I^-
 C. I_3^-
 D. I_2

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- Q. 71. The Scientist Chadwick in 1932 discovered
 A. Proton
 B. Neutron
 C. Electron
 D. Positron
- Q. 72. Orbitals having same energy are called
 A. Hybrid orbitals
 B. Valence Orbitals
 C. Degenerate Orbitals
 D. d-orbitals
- Q. 73. Cathode in Ni-Cd cell is:
 A. Ag_2O
 B. NiO_2
 C. Cd
 D. Zn
- Q. 74. As the reaction proceeds, the rate of reaction
 A. Increases
 B. Decreases
 C. Remains constant
 D. May increase or decrease
- Q. 75. One Calorie is equivalent to
 A. 0.4184 J
 B. 4184 J
 C. 4.184 J
 D. 418.4 J

MATHEMATICS

- Q. 76. If " x " and " y " are two positive distinct real numbers, then
 A. $A > 0$
 B. $A < 0$
 C. $A = 0$
 D. $A \geq 0$
- Q. 77. The slope of the line through the points $(-2, 4)$ and $(3, 11)$ is:
 A. 0
 B. 1
 C. 2
 D. 3
- Q. 78. The domain of $y = \cos x$ is:
 A. $-1 \leq x \leq 1$
 B. $-1 \leq y \leq 1$
 C. $-\infty < x < \infty$
 D. $-\infty < y < \infty$
- Q. 79. The number of solutions of the equation $\tan^2 \theta = \frac{1}{2}$ are:
 A. One
 B. Two
 C. Four
 D. Infinite
- Q. 80. The range of the probability of an event E is:
 A. $0 < P(E) < 1$
 B. $0 < P(E) \leq 1$
 C. $0 \leq P(E) < 1$
 D. $0 \leq P(E) \leq 1$
- Q. 81. Expansion of $(1-x)^{-n}$ is valid if:
 A. $|x| < 1$
 B. $|x| < 1/2$
 C. $|x| < 1/3$
 D. $|x| < 5$
- Q. 82. The coefficient of x^m term in the expansion of $(x + x^2)^n$, $n \in \mathbb{N}$ is:
 A. nC_m
 B. nC_r
 C. ${}^{n-m}C_r$
 D. ${}^nC_{n-m}$
- Q. 83. $2^n > 2n$ is true for:
 A. $1 \leq n$
 B. $2 \leq n$
 C. $3 \leq n$
 D. $4 \leq n$
- Q. 84. In three cube roots of unity, the possible value of ω^2 is:
 A. $\frac{1+\sqrt{3}}{2}$
 B. $\frac{1-\sqrt{3}}{2}$
 C. $\frac{-1+\sqrt{3}}{2}$
 D. $\frac{-1-\sqrt{3}}{2}$
- Q. 85. If Z is a complex number then $[Z]^2$ is equal to:
 A. Z^2
 B. $(Z)^2$
 C. $Z \cdot Z$
 D. Z'
- Q. 86. Angle is in standard position if its vertex is at:
 A. $(0, 0)$
 B. $(0, 1)$
 C. $(1, 0)$
 D. $(1, 1)$

- Q. 87. Area of triangle Δ is:
 A. $\frac{1}{2}ab \sin \alpha$
 C. $\frac{1}{2}ab \sin \gamma$
 B. $\frac{1}{2}ab \sin \beta$
 D. $\frac{1}{2}ab \sin \theta$
- Q. 88. The circum radius R is equal to:
 A. $\frac{a+b+c}{ab}$
 C. $\frac{abc}{ab}$
 B. $\frac{abc}{4R}$
 D. $\frac{abc}{4R \sin \alpha}$
- Q. 89. The range of $\cot x$ is:
 A. $\mathbb{R}$
 C. $\mathbb{R} \setminus \{x|x=\pi\}$
 B. $[-1,1]$
 D. $\{x|x = (2n+1)\frac{\pi}{2}\}$
- Q. 90. The number of ways in which 5 person can be seated at a round table are:
 A. 24
 C. 4!
 B. 3!
 D. 5!
- Q. 91. If A is a matrix of order 3×2 , then order of A^T is:
 A. 3×2
 C. 2×2
 B. 3×3
 D. 3×3
- Q. 92. If a polynomial $P(x) = x^3 + 4x - 2x + 5$ is divided by $x-1$, then the remainder is:
 A. 4
 C. 5
 B. -2
 D. 8
- Q. 93. If $A = \{1,2,3,4,5\}$, $B = \{4,5,6,7,8,9,10\}$, then $A \cap B$ is equal to:
 A. $\{6,7,8,9,10\}$
 C. $\{1,2,3\}$
 B. $\{4,5\}$
 D. $\{4,5,6,7,8,9,10\}$
- Q. 94. Common difference of A.P. 17,13,9 _____ is:
 A. 4
 C. 30
 B. -4
 D. 17
- Q. 95. nP_1 is equal to:
 A. 36
 C. 6
 B. 360
 D. 4
- Q. 96. $\sin\left(\frac{\pi}{2} + \theta\right) =$
 A. $\sec \theta$
 C. $-\cos \theta$
 B. $\cos \theta$
 D. $-\cos \theta$
- Q. 97. $\cos^{-1}\left(\frac{1}{\sqrt{2}}\right) =$
 A. $\frac{\pi}{4}$
 C. $\frac{\pi}{2}$
 B. $-\frac{\pi}{4}$
 D. $\frac{\pi}{3}$
- Q. 98. The rank of the matrix $\begin{bmatrix} 1 \\ 0 \\ 3 \end{bmatrix}$ is:
 A. Zero
 C. Two
 B. One
 D. Three
- Q. 99. The rational fraction $\frac{P(x)}{Q(x)}$ is proper if:
 A. Degree of $P(x) <$ degree of $Q(x)$
 C. Degree of $Q(x) <$ degree of $P(x)$
 B. Degree of $P(x) >$ degree of $Q(x)$
 D. Degree of $Q(x) \geq$ degree of $P(x)$
- Q. 100. If $4^x = \frac{1}{2}$, then x is equal to:
 A. $-\frac{1}{2}$
 C. $-\frac{1}{4}$
 B. -2
 D. 2

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 Information

Roll # 10320

Stream : (2) Eng, Phy, Chem, Math

Center : (Lahore)

2

M

Form ID		Date	
Form ID	0320	Date	24/05/18
Roll No.	10320	Form ID	0 1 2 3 4 5 6 7 8 9
CNIC	3110479577235	1st digit	● ○ ○ ○ ○ ○ ○ ○ ○ ○
Name	Zarag Abbas	2nd digit	○ ○ ○ ● ○ ○ ○ ○ ○ ○
F-Name	ZAFAR IQBAL	3rd digit	○ ○ ● ○ ○ ○ ○ ○ ○ ○
Exam	Entry Test 1B-1	4th digit	● ○ ○ ○ ○ ○ ○ ○ ○ ○
DO NOT ALTER FORM ID IN ANY CASE			

Q.No.	1	2	3	4	5	6	7	8	9	10	Q.No.	11	12	13	14	15	16	17	18	19	20
A	●	○	○	○	○	○	○	○	○	○	A	○	○	○	○	○	○	○	○	○	○
B	○	●	○	○	○	○	○	○	○	○	B	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○	○	○	○	C	○	○	○	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○	○	○	○	D	○	○	○	○	○	○	○	○	○	○

Q.No.	21	22	23	24	25	26	27	28	29	30	Q.No.	31	32	33	34	35	36	37	38	39	40
A	○	○	○	○	○	○	○	○	○	○	A	○	○	○	○	○	○	○	○	○	○
B	○	○	○	○	○	○	○	○	○	○	B	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○	○	○	○	C	○	○	○	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○	○	○	○	D	○	○	○	○	○	○	○	○	○	○

Q.No.	41	42	43	44	45	46	47	48	49	50	Q.No.	51	52	53	54	55	56	57	58	59	60
A	○	○	○	○	○	○	○	○	○	○	A	○	○	○	○	○	○	○	○	○	○
B	○	○	○	○	○	○	○	○	○	○	B	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○	○	○	○	C	○	○	○	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○	○	○	○	D	○	○	○	○	○	○	○	○	○	○

Q.No.	61	62	63	64	65	66	67	68	69	70	Q.No.	71	72	73	74	75	76	77	78	79	80
A	○	○	○	○	○	○	○	○	○	○	A	○	○	○	○	○	○	○	○	○	○
B	○	○	○	○	○	○	○	○	○	○	B	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○	○	○	○	C	○	○	○	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○	○	○	○	D	○	○	○	○	○	○	○	○	○	○

Q.No.	81	82	83	84	85	86	87	88	89	90	Q.No.	91	92	93	94	95	96	97	98	99	100
A	○	○	○	○	○	○	○	○	○	○	A	○	○	○	○	○	○	○	○	○	○
B	○	○	○	○	○	○	○	○	○	○	B	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○	○	○	○	C	○	○	○	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○	○	○	○	D	○	○	○	○	○	○	○	○	○	○

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Candidate's Signature

Superintendent's Signature

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ENGLISH

Choose the correct answer

[A], letters

- Q. 1. She stayed out of shouting; here LEAPED means
 (A) Jumped (B) ☒ Cried (C) Avoided (D) Ran
- Q. 2. Was I bothering you when I turned that corner; here BOTHERING means
 (A) Calling (B) ☒ Worrying (C) Praying (D) Solving
- Q. 3. He could make a dash for it down the hill; here MAKE A DASH means
 (A) Do hurry (B) Watch (C) Disappear (D) ☒ Demand
- Q. 4. That would embarrass him; here EMBARRASS means
 (A) ☒ Spoil (B) Spoil (C) Teach (D) Punish
- Q. 5. And very magnificent claiming it was; here MAGNIFICENT means
 (A) Good (B) finer (C) ☒ Splendid (D) ☒ Lowly
- Q. 6. The young man looked at the guitar with an air of CONNOISSEUR
 (A) ☒ Person (B) Digger (C) ☒ Ignorant (D) Critic
- Q. 7. Let freedom ring from the CURVACEOUS peaks of California
 (A) Lady (B) ☒ Having Curves (C) Low (D) Flat
- Q. 8. The lid of the rocket gave a BULGING pop
 (A) ☒ Increasing (B) Decreasing (C) Pleased (D) Mm
- Q. 9. The captain established headquarters in an ABANDONED bar
 (A) Populated (B) ☒ Deserted (C) Specimen (D) Narrow
- Q. 10. Norma made a SCREEING sound
 (A) Knocking (B) Laughing (C) ☒ Macking (D) Talking
- Q. 11. To be able to realize his aim, man got ENMESHED in love
 (A) Netted (B) ☒ Freed (C) Escaped (D) Ran away
- Q. 12. Through love, WRATH seems to be mercy
 (A) Smile (B) Laugh (C) Muck (D) ☒ Anger

MORNING SESSION

Stream 2: Eng. Phys. Chem.

- Q. 58. Accurate detection of straightness can be done by the use of:
(A) Indicator (B) Capacitor (C) Comparator (D) Thermometer

CHEMISTRY

- Q. 59. Argentum is the test of
(A) Zinc (B) Lead (C) Manganese (D) Tin
- Q. 60. Which chemical does not undergo sublimation?
(A) KMnO_4 (B) Naphthalene (C) NH_4Cl (D) Iodine
- Q. 61. Structure of carbon dioxide (CO_2) molecule is
(A) Linear (B) Angular (bent) (C) Tetrahedral (D) Trigonal plane
- Q. 62. Which class of organic compounds is not soluble in water?
(A) Carboxylic acids (B) Hexanes (C) Alcohols (D) Alkanes
- Q. 63. Born-Haber cycle is used to determine the
(A) Combustion energy (B) Dissociation energy (C) Lattice energy (D) Formation energy
- Q. 64. The total heat content of the system is called
(A) Enthalpy (B) Entropy (C) Temperature (D) Internal energy
- Q. 65. Heat change of a process in which volume remains constant is represented by
(A) ΔU (B) ΔH (C) ΔG (D) ΔS
- Q. 66. If $\Delta V > 0$ the pressure-volume work has a _____ value
(A) Zero (B) Positive (C) Negative (D) Not predictable
- Q. 67. The term pH was introduced by
(A) Henderson (B) Sørensen (C) Goldsmith (D) Thurman
- Q. 68. The pH of human blood is
(A) 7.2 (B) 5.2 (C) 7.35 (D) 8.35
- Q. 69. Which material possesses the highest pOH ?
(A) Soft drinks (B) Urine (C) Milk of magnesia (D) Sea water
- Q. 70. Molarity of pure water is
(A) 100 M (B) 55 M (C) 55.5 M (D) 50 M
- Q. 71. Mole fraction is not affected by
(A) Temperature (B) Volume (C) Pressure (D) All of these
- Q. 72. According to classical concepts, the oxidation involves
(A) Addition of oxygen (B) Removal of hydrogen (C) Increase in oxidation state (D) All of the above
- Q. 73. Which of the following substance shows the property of sublimation?
(A) Sodium chloride (B) Ammonium chloride (C) Copper chloride (D) Acetic acid
- Q. 74. Fuel cell converts chemical energy into
(A) Heat energy (B) Light energy (C) Electrical energy (D) Mechanical energy
- Q. 75. Invert sugar hydrolyses to glucose and fructose in the presence of enzyme

Pick the correct option from the given choices to fill in the blanks.

- Q. 13. Every Muslim _____ in Allah and his Prophet (P.W.H.)
 (A) Believed (B) Are believing ~~(C) Believers~~ (D) Have believe
- Q. 14. He prevented me _____ going out to the suit.
 (A) At (B) For ~~(C) From~~ (D) To
- Q. 15. I hope they _____ the city before I reach there.
 (A) Will not have left (B) Could not leave (C) Will not be left ~~(D) Might not leave~~
- Q. 16. He is waiting _____ me.
~~(A) At~~ (B) For (C) On (D) Into
- Q. 17. The Hindus _____ their dead bodies.
 (A) To burn (B) Was burn (C) Were burn ~~(D) Burn~~
- Q. 18. Do not laugh _____ the poor.
 (A) To (B) On (C) For ~~(D) At~~
- Q. 19. I advised him _____ the truth.
 (A) To say (B) To tell ~~(C) To speak~~ (D) To ask
- Q. 20. It _____ since morning.
 (A) Will be blowing (B) Is blowing (C) Blow ~~(D) Has been blowing~~
- Q. 21. Charity _____ at home.
 (A) Began (B) Has begun (C) Begun (D) Begun
- Q. 22. We have not _____ them.
~~(A) Helped~~ ~~(B) Help~~ (C) Helps (D) Helping
- Q. 23. He _____ go to school yesterday.
 (A) Has not (B) Does not ~~(C) Did not~~ (D) Will not
- Q. 24. They _____ playing.
~~(A) Will~~ (B) Will be (C) Will have (D) Shall be
- Q. 25. If I _____ to Lahore, I would buy things for you.
 (A) Goes ~~(B) Shall go~~ ~~(C) Went~~ (D) Will go

PHYSICS

- Q. 26. Work has dimensions like
 (A) Torque (B) Momentum (C) Velocity (D) Power
- Q. 27. The scalar product of two vectors is maximum when they are
~~(A) Parallel~~ (B) Perpendicular (C) Antiparallel (D) Null
- Q. 28. When two vectors are anti-parallel the angle between them is
 (A) Zero (B) 180° (C) 90° (D) 270°
- Q. 29. The direction of vector in space is specified by
 (A) 1-angle (B) 2-angle (C) 3-angle (D) 4-angle
- Q. 30. Work is a quantity which is represented by
 (A) Numerical value (B) Unit (C) Direction (D) Both (A) & (B)

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- Q. 76. The elements in one range of the sequence
(A) Members (B) Terms (C) None of these
- Q. 77. The circum radius R is equal to:
(A) $(a+b+c)/4.5$ (B) $abc/(4.5^2)$ (C) $abc/4.5$ (D) $abc/4$
- Q. 78. Geometric means between -2 and 2 are _____
(A) 2 (B) 4 (C) 4 (D) None of these
- Q. 79. The index of $(2a \times a)^7$ is
(A) 9 (B) 8 (C) 7 (D) 6
- Q. 80. $af = x^2$ is true for
(A) $x < 1$ (B) $x < 2$ (C) $x < 3$ (D) $x < 4$
- Q. 81. If $\triangle ABC$ is right angle triangle, the law of cosines reduced to:
(A) The law of sines (B) Area of triangle (C) The law of tangents (D) The Pythagoras theorem
- Q. 82. The A.M. between two numbers a and b is:
(A) $(a+b)/2ab$ (B) $2ab/(a+b)$ (C) $(a+b)/2$ (D) $2/(a+b)$
- Q. 83. If $\sqrt{3}$ and 1 are x and y-components of a vector, then its angle with x-axis is
(A) 90° (B) 45° (C) 60° (D) 30°
- Q. 84. Modulus of $5 - 3i$ is
(A) 4 (B) 16 (C) 14 (D) $\sqrt{34}$
- Q. 85. $AD(A^T B) =$
(A) B (B) $A^T B$ (C) ϕ (D) A^T

EXAMINING SESSION

Stream 2: Eng. Phys. Chem. Math

- Q. 31. The unit of work in CGS system is
(A) Joule (B) Newton (C) Dyne (D) Ftg
- Q. 32. Basic forms of mechanical energy are
(A) Three (B) Two (C) Five (D) Four
- Q. 33. Work energy principle is applicable on
(A) KE (B) Gravitational PE (C) Elastic PE (D) All of these
- Q. 34. When water falls from top its cross-sectional area decreases due to
(A) Decrease of speed (B) Increase of speed (C) Air pressure (D) Gravity increase
- Q. 35. The systolic pressure of normal healthy person is
(A) 120 torr (B) 150 torr (C) 120 mm (D) 110 mm
- Q. 36. Time rate of change of momentum is
(A) Velocity (B) Impulse (C) Force (D) Pressure
- Q. 37. In Compton scattering, the Compton shift will be equal to Compton wavelength, if the scattering angle is
(A) Zero (B) 45° (C) 60° (D) 90°
- Q. 38. The dimension of $\sqrt{C/g}$ is same as that of
(A) Time (B) Energy (C) Velocity (D) Force
- Q. 39. A paratrooper moves downward with
(A) Zero acceleration (B) Constant acceleration (C) Positive acceleration (D) Negative acceleration
- Q. 40. Velocity of an object dropped from a building at any instant 't' is given by:
(A) $\sqrt{2}gt$ (B) $\sqrt{2}gt^2$ (C) gt (D) gt^2
- Q. 41. The power needed to lift a mass of 5000g to height of 1m in 2 seconds is
(A) 2.45 watt (B) 24.5 watt (C) 245 watt (D) 2.45 kW
- Q. 42. At which place the motion of a simple pendulum will be slowest
(A) Karachi (B) K-2 (C) Murree (D) Lahore
- Q. 43. The velocity of sound in vacuum is
(A) 332m/s (B) 260m/s (C) Zero (D) 332m/s
- Q. 44. In Michelson's experiment, the angle subtended by a side of the right angled mirror is
(A) $\pi/8$ rad (B) $\pi/4$ rad (C) $\pi/2$ rad (D) $\pi/6$ rad
- Q. 45. Unit of thermodynamic scale of temperature is
(A) Centigrade (B) Fahrenheit (C) Kelvin (D) Celsius
- Q. 46. First law of thermodynamics for an adiabatic process is
(A) $Q = \Delta U$ (B) $Q = W$ (C) $W = Q + \Delta U$ (D) $W = -\Delta U$
- Q. 47. The product of resistance and capacitance is equal to
(A) Velocity (B) Force (C) Acceleration (D) Time
- Q. 48. NC^{-1} is the SI unit of
(A) Force (B) Charge (C) Current (D) Electric intensity

Q. 49. In an AC circuit, the alternate voltage reaches a peak value

MORNING SESSION

Stream 2: **Eng. Phys. Chem. Math**

Q. 86. If A and B are non-singular matrices, then $(AB)^{-1} =$
(A) $1/AB$ (B) $A^{-1}B^{-1}$ (C) BA (D) $B^{-1}A^{-1}$

Q. 87. If $4x = 1/5$, then $x =$
(A) $1/5$ (B) $1/20$ (C) $1/4$ (D) $1/2$

Q. 88. Product of all cube roots of unity is
(A) 1 (B) 0 (C) -1 (D) ω

Q. 89. $y = 3x^2 + 4x + 2$ is
(A) Equation (B) Function (C) Identity (D) Conditional equation

Q. 90. 3 persons can be seated at a round table in how many ways?
(A) 2! (B) 3! (C) 2! (D) 20

Q. 91. The number of terms in the expansion of $(x + 1)^{10}$ is
(A) 8 (B) 10 (C) 11 (D) 12

Q. 92. 50° radians equals
(A) 140° (B) 115° (C) 270° (D) 225°

Q. 93. The period of $\sec x$ is
(A) π (B) 2π (C) 3π (D) 4π

Q. 94. If $\tan x = \cot x$, then $x =$
(A) 45° (B) 30° (C) 0° (D) 60°

Q. 95. The medians of a triangle are
(A) Collinear (B) Concurrent (C) Perpendicular (D) Parallel

Q. 96. If α is the inclination of a non-vertical line l , then its slope is
(A) $\sin \alpha$ (B) $\cos \alpha$ (C) $\tan \alpha$ (D) $\cot \alpha$

Q. 97. $\log 1 =$
(A) 1 (B) 0 (C) π (D) $i\pi$

Q. 98. $\lim_{x \rightarrow a} \frac{f(x) - f(a)}{x - a} =$
(A) $f'(x)$ (B) $f'(a)$ (C) $f'(x - a)$ (D) $f'(a)$

Q. 99. $\int \tan x \, dx =$
(A) $\ln |\sec x| + c$ (B) $\ln |\cos x| + c$ (C) $\ln |\sin x| + c$ (D) $\ln |\cot x| + c$

Q. 100. $\int \frac{2}{x \ln x} \, dx =$
(A) $\ln x + c$ (B) $2 \ln(\ln x) + c$ (C) $x + c$ (D) $\ln(\ln x) + c$

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