

University of Agriculture, Faisalabad
Entry test for Admission to the First Degree Programs
July 14, 2024 at 10:00 a.m.

Time: 90 minutes

Maximum Marks: 100

IMPORTANT INSTRUCTIONS FOR THE CANDIDATES

The candidates are given the question paper sheets of their chosen subject stream 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 a **BUBBLE**. Calculator can be used but **MUST NOT** be shared with others. A candidate can leave the test hall after half time.

Please **DO NOT DETACH** the Bubble Sheet from the Question Paper

ENGLISH

Choose the correct answers to the words in underlined CAPITAL letters.

- A CAREFUL teacher spends hours preparing for classes and correcting students papers.
 A. Conscientious B. Skillful C. Leading D. Creative
- Autistic people usually have unexpected and BIZARRE responses to their environment.
 A. Inconspicuous B. Usual C. Ordinary D. Strange
- The COLLAPSE of the stock market signaled the beginning of the economic crisis.
 A. Revival B. Failure C. Rise D. Rebirth
- The enemy's attempt at a BLOCKADE of the port was unsuccessful.
 A. Expedition B. Opening C. Closure D. Landing
- Generally, our memories CLUSTER around certain topics.
 A. Pillar B. Bunch C. Flee D. Meddle
- We were shocked by the BRUTALITY of the hoodlums.
 A. Eagerness B. Politeness C. Foolishness D. Cruelty
- Some hotels have imposed a BAN on cigarette smoking.
 A. Prohibition B. Restriction C. Guarantee D. Punishment
- The hurricane that hit the city had a CATASTROPHIC effect.
 A. Blowing B. Disastrous C. Categories D. Frightening
- We were asked to list the CHRONOLOGY of events on our history test.
 A. Revolution B. Time sequence C. Catastrophe D. Disaster
- The monetarist CASE has been vividly expressed by Milton Friedman.
 A. Strongbox B. Argument C. Issue D. Example
- A nursery school is a school CHIEFLY for three or four-year-old children.
 A. Primarily B. Originally C. Certainly D. Exclusively
- Finding the missing paper on Ali's CLUTTERED desk is almost impossible.
 A. Refurbished B. Tarnished C. Well-organized D. Littered
- Sometimes the most unlikely people manage to COLLABORATE successfully.
 A. Stand together B. Work together C. Judge D. Put together

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

- She was yelling _____ her students.
 A. Over B. At C. For D. Against
- She congratulated me _____ my success.
 A. After B. On C. Upon D. At
- She was brought _____ by her uncle.
 A. Of B. On C. Up D. Upon
- The wearer knows where the shoe _____.
 A. Pinch B. Pinches C. Is pinching D. Was pinching
- It is no use casting pearls before _____.
 A. Cow B. Pig C. Buffalo D. Swine
- He _____ out five minutes ago.
 A. Had gone B. Has gone C. Was going D. Went
- She _____ ill for a week.
 A. Is B. Was C. Had D. Has been
- His house is adjacent _____ the mosque.
 A. Of B. At C. With D. To
- He laughs as if he _____ mad.
 A. Is B. Was C. Been D. Were
- He _____ to college daily in time.
 A. Go B. Goes C. Going D. Gone

Stream 1: Eng, Phys, Chem, Bio.

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24. Walk fast lest you _____ miss the train.
A. May B. Should
25. A nod to the wise and _____ to the foolish.
A. Stone B. Arrow

G-1

C. Must

C. Rod

D. Ought to

D. Whip

PHYSICS

26. A light year is a unit for
A) Time B) Distance
27. The SI unit of intensity of light is
A) Mole B) Kelvin
28. Which one is a vector
A) Length B) Volume
29. The angle between rectangular components of vector
A) 45° B) 60°
30. Unit of G is
A) Nm^2kg^2 B) Nm^2kg
31. Which colors are used in color printing?
A) Cyan B) Magenta
32. Travel time of light from moon to earth is
A) 1 min 20 sec B) 8 min 20 sec
33. 1 femto is equal to
A) 10^{-15} B) 10^{-18}
34. According to Einstein 1kg mass is converted to energy
A) $9 \times 10^8 \text{ J}$ B) $9 \times 10^{16} \text{ J}$
35. Color printing uses colors
A) Three B) Four
36. Significant figures in 1.00110 are
A) 3 B) 1
37. Which is not base unit in these?
A) Kilogram B) Joule
38. SI unit of energy density of electric field is
A) J/C B) J/V
39. The term "RC" has same unit as that of
A) Potential B) Capacitance
40. The unit of electric field intensity other than N/C is
A) V/A B) V/m
41. The force on an electron in a field of $1.8 \times 10^8 \text{ N/C}$
A) $2.6 \times 10^{-8} \text{ N}$ B) $2.88 \times 10^{-11} \text{ N}$
42. If potential difference between plates of parallel plate capacitor is doubled then energy stored in it will
A) Two times B) Four times
43. The value of maximum electric flux is obtained when angle between E and A is
A) 90° B) 0°
44. If the distance between two point charges is doubled then force between them will become
A) Half B) Double
45. Sec/ohm is equal to
A) Farad B) Coulomb
46. The electric field created by positive charge is
A) Radially outward B) Radially inward
47. For the computation of electric flux the surface should be
A) Closed B) Curved
48. The unit of electric field intensity is
A) Newton B) Coulomb
49. If the distance between two charges is half then force becomes
A) Half B) One fourth
50. An ECG records, between points on human skin generated by electrical process in the heart
A) Current B) Voltage
- C) Velocity D) Time period
C) Candela D) Ampere
C) Velocity D) Work
C) 90° D) 180°
C) Nm^2kg^2 D) None
C) Yellow & black D) All of these
C) 5 hour 20 sec D) None of these
C) 10^{-12} D) 10^{-9}
C) $9 \times 10^{15} \text{ J}$ D) $9 \times 10^{17} \text{ J}$
C) Five D) Seven
C) 7 D) 6
C) Ampere D) Kelvin
C) J/m^3 D) J/F^2
C) Energy D) Time
C) V/C D) N/V
C) $2.6 \times 10^{-19} \text{ N}$ D) $1.6 \times 10^{-27} \text{ N}$
C) Eight times D) Remains same
C) 270° D) 180°
C) Four times D) One fourth
C) Joule D) Ampere
C) Circular D) Zero
C) Inclined D) Spherical
C) Joule/coulomb D) Newton/coulomb
C) Two times D) Four times
C) Resistance D) Capacitance

CHEMISTRY

51. The comparative rates at which the solutes move in paper chromatography depend on
(a) the size of paper used (b) R_f values of solutes
(c) temperature of the experiment (d) size of the chromatographic tank used

1. Gases are ideal at
 (a) low pressure and high temperature (b) low temperature and high pressure
 (c) high pressure and high temperature (d) low pressure and low temperature
2. Which of the following colours has the longest wavelength in the visible spectrum of light
 (a) red (b) blue (c) violet (d) green
3. Relative atomic mass is the mass of an atom of an element as compared to the mass of
 (a) oxygen (b) hydrogen (c) nitrogen (d) carbon
4. The 27 grams of Al will react completely with how much mass of O_2 to produce Al_2O_3
 (a) 8 gm of oxygen (b) 16 gm of oxygen (c) 32 gm of oxygen (d) 24 gm of oxygen
5. Science of the chemical characterization stands under the heading of
 (a) industrial chemistry (b) experimental chemistry (c) analytical chemistry (d) physical chemistry
57. The weakest intermolecular for a
 (a) dipole-dipole force (b) electrostatic force between ions
 (c) ion-dipole force (d) dipole-induced dipole force
58. The velocity of photon is
 (a) independent of its wavelength (b) depends on its wavelength
 (c) equal to square of its amplitude (d) depends on its source
59. When a spectrum of light is formed by the radiation given off by a substance is called
 (a) line spectrum (b) continuous spectrum (c) emission spectrum (d) absorption spectrum
60. A spinning electron creates
 (a) magnetic field (b) electric field (c) quantum field (d) none of these
61. Which compound has most acidic hydrogen?
 (a) Butane (b) 1-Butyne (c) 2-Butyne (d) 1-Butene
62. Sabatier-Sender's reaction can be used to prepare
 (a) Alkynes (b) Alkenes (c) Alkanes (d) All of these
63. Aromatization of n-heptane gives
 (a) Naphthalene (b) Benzene (c) Methyl cyclohexane (d) Toluene
64. When alcohol is made to react with alkyl magnesium halide, the product is
 (a) Epoxide (b) Alkane (c) Alkene (d) All of these
65. Methyl ketones are characterized by
 (a) Tollen's reagent (b) Grignard reagent (c) Iodoform Test (d) Fehling Solution
66. Distillation under very reduced pressure is called
 (a) Fractional distillation (b) distillation
 (c) Vacuum destructive distillation (d) destructive distillation
67. Molecular crystals are generally
 (a) hard (b) soft (c) unstable (d) stable
68. When the 6d orbital is complete the entering electron goes into
 (a) 7f (b) 7s (c) 7p (d) 7d
69. Which of the following organic compound does not show position as well as functional group isomerism
 (a) Pentanal (b) Butanoic acid (c) Pentanone (d) Butanol
70. Biosphere includes
 (a) Atmosphere (b) Hydrosphere (c) Lithosphere only (d) All of these
71. Which of the following statement is not correct
 (a) sigma bond is weaker than a pi bond (b) sigma bond is stronger than a pi bond
 (c) double bond is stronger than a single bond (d) double bond is shorter than a single bond
72. Select the atom with the largest ionization energy in the following atoms
 (a) N (b) P (c) As (d) Sb
73. Shielding effect across the periods are
 (a) Increases (b) Decreases (c) Cannot be predicted (d) Remain constant
74. Lime is used
 (a) for refining of metals (b) in paper industry (c) as dehydrating agents (d) all of these
75. f-Block elements are also called
 (a) Normal transition elements (b) Non-typical transition elements
 (c) Outer transition elements (d) All of these

BIOLOGY

76. Members of the one species inhabiting an area
 a) Species b) Community c) Population d) Ecotype
77. A bond between fatty acid and glycerol
 a) Ester Bond b) Glycosidic linkage c) Peptide linkage d) Phosphate bridge
78. The number of amino-acids found in most of the proteins
 a) 170 b) 25 c) 40 d) 20

79. The proportion of mtDNA to the total DNA in the cell
 a) 10 to 20% b) 3 to 4% c) 80% d) 50 %
80. The non-protein part of an enzyme is called
 a) Holo-enzyme b) Coenzyme c) Cofactor d) Apo-enzyme
81. A type of enzymatic inhibition where the enzyme activity is checked by occupying the active site or destroying the globular structure
 a) Reversible inhibition b) Competitive inhibition c) Non-competitive inhibition d) Irreversible inhibition
82. The fluidity of plasma membrane in eukaryotes is maintained by
 a) Cholesterol b) Hapnoid c) Glycolipids d) Glycoproteins
83. The plastids having color other than green
 a) Chloroplasts b) Chromoplasts c) Leucoplasts d) Amyloplasts
84. Which of the following organelle is not present in viruses
 a) DNA b) Protein coat c) Collar d) Ribosomes
85. The single stranded RNA viruses causing tumors are an example of
 a) Retrovirus b) Pox virus c) Pro virus d) Bacteriophage
86. The accessory pigment used by cyanobacteria
 a) Phycoerythrin b) Glycogen c) Phycobilins d) Chlorophyll a
87. The mod of movement in zooflagellates is
 a) Cilia b) Flagella c) Pseudopods d) Pilli
88. In oomycetes, a group of fungi, the cell wall is made of
 a) Chitin b) Lignin c) Murein d) Cellulose
89. The fungal cells having two nuclei of different genetic types
 a) Heterokaryotic b) Dikaryotic c) Diploid d) Both (a) and (b)
90. All vascular plants are placed in the group
 a) Bryophyta b) Tracheophyta c) Eukaryoteae d) Gymnospermae
91. In bryophyte, the dominant generation is
 a) Sporophyte b) Angiosperms c) Gametophyte d) Saprophyte
92. In echinoderms, water enters in canals through sieve like cells called
 a) Madreporite b) Pits c) Pores d) Plasmodesmata
93. The process of ATP generation on thylakoid membranes!
 a) Glycolysis b) Oxido-reduction c) Respiration d) Chemiosmosis
94. The metal ion present in the porphyrin ring of chlorophyll
 a) Fe b) Ca c) Mg d) Na
95. The products of light dependent reaction of photosynthesis are
 a) ATP and NADH b) CO₂ and ATP c) FADH and NADH d) O₂ and NADH
96. The yellowing of leaves due to lack of chlorophyll is called
 a) Glazing b) Necrosis c) Bleaching d) Chlorosis
97. A type of transpiration occurring through the stems of plants by special openings
 a) Cuticular b) Lenticular c) Stomatal d) Dermal
98. Blood cancer is also called
 a) Leukemia b) Thalassemia c) Edema d) Anemia
99. The production of proteins from messenger RNA template
 a) Transduction b) Replication c) Translation d) Transcription
100. Special enzymes used to cut DNA are called
 a) Hydrolases b) Endonucleases c) Phosphorylases d) Esterases