



Roll No _____ to be filled in by the candidate

(For All Sessions)

ریاضی (سائنس گروپ) معروضی

Mathematics (Science Group) (Objective)

(GROUP-I)

Time: 20 Minutes Marks: 15

نوٹ: تمام سوالات کے جوابات دی گئی معروضی جوابی کاپی پر لکھیے ہر سوال کے چار ممکنہ جوابات A, B, C اور D دیئے گئے ہیں، جس کو آپ درست سمجھیں، جوابی کاپی پر اس سوال نمبر کے سامنے جو B, A یا C کے دائروں میں سے متعلقہ دائرے کو مار کر یا پین کی سیاہی سے بھر دیں۔

Note: Write Answers to the Questions on the objective answer sheet provided. Four possible answers A, B, C and D to each question are given. Which answer you consider correct, fill the corresponding circle A, B, C or D given in front of each question with Marker or Pen ink on the answer sheet provided.

- 1.1 کسی متغیر X کا اس کے حسابی اوسط سے انحراف کا مجموعہ ہمیشہ _____ ہوتا ہے۔
1. Sum of the deviations of the variable X from its mean is always: (A) One ایک (B) Zero صفر (C) Two دو (D) Three تین
2. $\frac{1}{2} \operatorname{Cosec} 45^\circ =$ (A) $\frac{1}{2\sqrt{2}}$ (B) $\sqrt{3}$ (C) $\sqrt{2}$ (D) $\frac{1}{\sqrt{2}}$
3. Through how many non collinear points can a circle pass? (A) 1 (B) 2 (C) 3 (D) 0
4. A circle has only one: (A) Secant خط قاطع (B) Centre مرکز (C) Tangent مماس (D) Chord وتر
5. The length of a chord and the radial segment of a circle are congruent, the central angle made by the chord will be: (A) 45° (B) 60° (C) 70° (D) 90°
6. Angle inscribed in a semi circle is: (A) $\frac{\pi}{2}$ (B) $\frac{\pi}{3}$ (C) $\frac{\pi}{4}$ (D) $\frac{\pi}{6}$
7. The number of methods to solve a quadratic equation is: (A) 4 (B) 3 (C) 2 (D) 1
8. Roots of the equation $4x^2 - 5x + 2 = 0$ are: (A) Imaginary غیر حقیقی (B) Rational عقلی (C) Irrational غیر منطقی (D) Equal برابر
9. If α, β are the roots of $px^2 + qx + r = 0$ then sum of the roots 2α and 2β is: (A) $\frac{q}{2p}$ (B) $\frac{2q}{p}$ (C) $\frac{-q}{2p}$ (D) $\frac{-2q}{p}$
10. If $y^2 \propto \frac{1}{x^3}$ then (A) $y^2 = \frac{1}{x^3}$ (B) $y^2 = \frac{k}{x^3}$ (C) $y^2 = x^2$ (D) $y^2 = kx^3$
11. The third proportional of x^2 and y^2 is: (A) $\frac{y^2}{x^2}$ (B) $x^2 y^2$ (C) $\frac{y^4}{x^2}$ (D) $\frac{x^2}{y^4}$
12. A fraction in which the degree of the numerator is less than the degree of the denominator is called: (A) A proper fraction واجب کسر (B) An improper fraction غیر واجب کسر (C) An equation مساوات (D) Inequality غیر مساوات
13. If $A \leq B$, then $A - B$ is equal to: (A) $A \cup B$ (B) A (C) B (D) $\emptyset$
14. If number of element in set A is 3 and in set B is 2, then number of binary relations in $A \times B$ is: (A) 2^6 (B) 2^8 (C) 2^3 (D) 2^2
15. The spread of observations in a data set is called: (A) Quartile چہارمی حصہ (B) Range ست (C) Dispersion انتشار (D) Average اوسط