CUCET 2027 Practice Paper 1 (Non-Medical)

Practice paper in the CUCET pattern, with answer key and solutions.

Stream	Non-medical (English, Aptitude, Physics, Chemistry, Mathematics)
Marking	1 mark per correct answer, no negative marking
Suggested time	60 minutes for this 50-question paper (the real CUCET has 100 questions in 120 minutes)
Note	Original practice paper written by PreviousYearPaper.online. It is NOT an official Chandigarh University question paper.
Questions	50

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English (8 questions)

Q1. Choose the synonym of ABUNDANT.

(A) scarce (B) plentiful
(C) fragile (D) silent

Q2. Choose the antonym of TRANSPARENT.

(A) opaque (B) clear
(C) visible (D) obvious

Q3. Fill in the blank: She has been living in Delhi ____ 2019.

(A) by (B) for
(C) since (D) from

Q4. Choose the correctly spelt word.

(A) accomodation (B) accommodasion
(C) acommodation (D) accommodation

Q5. One word for 'a person who speaks two languages':

(A) bipolar (B) bilingual
(C) bifocal (D) biennial

Q6. Identify the error: 'Each of the students have submitted the form.'

(A) 'the form' should be 'forms' (B) no error
(C) 'Each' should be 'All' (D) 'have' should be 'has'

Q7. The idiom 'to break the ice' means

(A) to end a friendship
(B) to start a conversation in a relaxed way
(C) to cause a quarrel
(D) to work very hard

Q8. Change to passive voice: 'The teacher praised the student.'

(A) The teacher was praised by the student.
(B) The student had praised the teacher.
(C) The student is praised by the teacher.
(D) The student was praised by the teacher.

Aptitude (12 questions)

Q9. What comes next: 3, 7, 15, 31, 63, ?

(A) 127 (B) 126
(C) 125 (D) 95

Q10. If 40% of a number is 72, the number is

(A) 180 (B) 160
(C) 200 (D) 172

Q11. A shopkeeper buys an item for ₹600 and sells it for ₹690. His profit per cent is

(A) 18% (B) 12%
(C) 15% (D) 9%

Q12. If MOUSE is coded as NPVTF, how is CHAIR coded?
(A) DIBJR (B) DIBJS
(C) BGZHQ (D) DHBJS

Q13. A train covers 180 km in 3 hours. Its speed in m/s is
(A) 20 m/s (B) 60 m/s
(C) 16.67 m/s (D) 15 m/s

Q14. The ratio of boys to girls in a class of 45 is 4 : 5. The number of girls is
(A) 25 (B) 30
(C) 20 (D) 24

Q15. P can complete a task in 12 days and Q in 6 days. Together they take
(A) 6 days (B) 9 days
(C) 4 days (D) 3 days

Q16. Pointing to a woman, Ravi says, 'She is the daughter of my mother's only son.' The woman is Ravi's
(A) mother (B) sister
(C) niece (D) daughter

Q17. Simple interest on ₹8,000 at 5% per year for 4 years is
(A) ₹2,000 (B) ₹1,600
(C) ₹1,800 (D) ₹1,200

Q18. Odd one out: 121, 144, 169, 196, 210
(A) 196 (B) 210
(C) 169 (D) 121

Q19. Facing north, Asha turns 90° clockwise and then 180°. She now faces
(A) south (B) east
(C) west (D) north

Q20. The average of five numbers is 24. If one number is removed the average becomes 22. The removed number is
(A) 30 (B) 32
(C) 24 (D) 28

Physics (10 questions)

Q21. The SI unit of power is the
(A) joule (B) newton
(C) watt (D) pascal

Q22. A body starts from rest with acceleration 2 m/s². Its velocity after 5 s is
(A) 20 m/s (B) 10 m/s
(C) 5 m/s (D) 2.5 m/s

Q23. Newton's first law is also called the law of
(A) momentum (B) inertia
(C) gravitation (D) action and reaction

Q24. The work done in lifting a 2 kg mass through 5 m (g = 10 m/s²) is
(A) 20 J (B) 10 J
(C) 100 J (D) 50 J

Q25. The equivalent resistance of two 6 Ω resistors in parallel is
(A) 6 Ω (B) 12 Ω
(C) 1.5 Ω (D) 3 Ω

Q26. The speed of light in vacuum is about
(A) 3×10^{10} m/s (B) 3×10^{5} m/s
(C) 3×10^{6} m/s (D) 3×10^{8} m/s

Q27. A convex lens has a focal length of 20 cm. Its power is
(A) +5 D (B) +20 D
(C) +0.05 D (D) −5 D

Q28. The kinetic energy of a 4 kg body moving at 3 m/s is
(A) 18 J (B) 12 J
(C) 6 J (D) 36 J

Q29. Ohm's law relates
(A) mass and energy (B) voltage and current
(C) pressure and volume (D) force and acceleration

Q30. The time period of a simple pendulum depends on its
(A) length (B) amplitude (for small swings)
(C) colour of the bob (D) mass of the bob

Chemistry (10 questions)

Q31. The atomic number of carbon is
(A) 6 (B) 14
(C) 12 (D) 8

Q32. The pH of pure water at 25 °C is
(A) 0 (B) 14
(C) 1 (D) 7

Q33. The number of moles in 36 g of water (H_2O = 18 g/mol) is
(A) 18 (B) 0.5
(C) 1 (D) 2

Q34. Which of these is a noble gas?
(A) nitrogen (B) argon
(C) chlorine (D) oxygen

Q35. The general formula of alkanes is
(A) C_nH_{2n} (B) C_nH_{2n-2}
(C) C_nH_{2n+2} (D) C_nH_n

Q36. The bond in NaCl is mainly
(A) ionic (B) covalent
(C) metallic (D) hydrogen

Q37. Which gas is released when zinc reacts with dilute HCl?

(A) carbon dioxide (B) chlorine
(C) hydrogen (D) oxygen

Q38. The IUPAC name of CH_3CH_2OH is

(A) propanol (B) methanol
(C) ethanal (D) ethanol

Q39. Rusting of iron is an example of

(A) reduction (B) neutralisation
(C) sublimation (D) oxidation

Q40. The most electronegative element is

(A) oxygen (B) fluorine
(C) nitrogen (D) chlorine

Mathematics (10 questions)

Q41. If $f(x) = 2x + 3$, then $f(4)$ is

(A) 14 (B) 8
(C) 11 (D) 10

Q42. The value of $\sin^2\theta + \cos^2\theta$ is

(A) 2 (B) 0
(C) $\sin 2\theta$ (D) 1

Q43. The derivative of x^3 with respect to x is

(A) $x^4/4$ (B) x^2
(C) $3x^2$ (D) $3x$

Q44. The sum of the first 20 natural numbers is

(A) 190 (B) 220
(C) 210 (D) 200

Q45. The roots of $x^2 - 5x + 6 = 0$ are

(A) -2 and -3 (B) 2 and 3
(C) -1 and 6 (D) 1 and 6

Q46. $\int 2x\,dx$ equals

(A) $2 + C$ (B) $x + C$
(C) $x^2 + C$ (D) $2x^2 + C$

Q47. The number of ways to arrange the letters of the word CAT is

(A) 3 (B) 9
(C) 6 (D) 27

Q48. If A is a 2×2 matrix with $\det A = 5$, then $\det(2A)$ is

(A) 5 (B) 10
(C) 25 (D) 20

Q49. The slope of the line $3x - y + 4 = 0$ is

(A) -3 (B) 4
(C) 1/3 (D) 3

Q50. A coin is tossed twice. The probability of getting at least one head is

(A) 1 (B) 1/2

(C) 1/4 (D) 3/4

Answer key

Q1 B	**Q2** A	**Q3** C	**Q4** D	**Q5** B
Q6 D	**Q7** B	**Q8** D	**Q9** A	**Q10** A
Q11 C	**Q12** B	**Q13** C	**Q14** A	**Q15** C
Q16 D	**Q17** B	**Q18** B	**Q19** C	**Q20** B
Q21 C	**Q22** B	**Q23** B	**Q24** C	**Q25** D
Q26 D	**Q27** A	**Q28** A	**Q29** B	**Q30** A
Q31 A	**Q32** D	**Q33** D	**Q34** B	**Q35** C
Q36 A	**Q37** C	**Q38** D	**Q39** D	**Q40** B
Q41 C	**Q42** D	**Q43** C	**Q44** C	**Q45** B
Q46 C	**Q47** C	**Q48** D	**Q49** D	**Q50** D

Solutions

Q1 · Answer: **(B) plentiful**
Abundant means existing in large quantities.

Q2 · Answer: **(A) opaque**
Opaque means not letting light through.

Q3 · Answer: **(C) since**
'Since' is used with a point in time.

Q4 · Answer: **(D) accommodation**
Double c and double m.

Q5 · Answer: **(B) bilingual**
Bi- (two) + lingual (language).

Q6 · Answer: **(D) 'have' should be 'has'**
'Each' takes a singular verb.

Q7 · Answer: **(B) to start a conversation in a relaxed way**
It means easing initial awkwardness.

Q8 · Answer: **(D) The student was praised by the teacher.**
Simple past active becomes 'was + past participle'.

Q9 · Answer: **(A) 127**
Each term is double the previous plus 1.

Q10 · Answer: **(A) 180**
72 ÷ 0.4 = 180.

Q11 · Answer: **(C) 15%**
90/600 × 100 = 15%.

Q12 · Answer: **(B) DIBJS**
Each letter moves one place forward.

Q13 · Answer: **(C) 16.67 m/s**
60 km/h × 5/18 = 16.67 m/s.

Q14 · Answer: **(A) 25**
45 × 5/9 = 25.

Q15 · Answer: **(C) 4 days**
1/12 + 1/6 = 1/4.

Q16 · Answer: **(D) daughter**
His mother's only son is Ravi himself.

Q17 · Answer: **(B) ₹1,600**
8000 × 5 × 4/100 = 1600.

Q18 · Answer: **(B) 210**
All others are perfect squares.

Q19 · Answer: **(C) west**
North → east → west.

Q20 · Answer: **(B) 32**
120 − 88 = 32.

Q21 · Answer: **(C) watt**
Power = work/time, measured in watts.

Q22 · Answer: **(B) 10 m/s**
v = u + at = 0 + 2 × 5.

Q23 · Answer: **(B) inertia**
A body keeps its state unless acted upon by a net force.

Q24 · Answer: **(C) 100 J**
W = mgh = 2 × 10 × 5.

Q25 · Answer: **(D) 3 Ω**
6 × 6 / (6 + 6) = 3 Ω.

Q26 · Answer: **(D) 3×10^8 m/s**
c ≈ 3×10^8 m/s.

Q27 · Answer: **(A) +5 D**
P = 1/f(m) = 1/0.2 = 5 D.

Q28 · Answer: **(A) 18 J**
½ × 4 × 3^2 = 18 J.

Q29 · Answer: **(B) voltage and current**
V = IR.

Q30 · Answer: **(A) length**
T = 2π√(l/g).

Q31 · Answer: **(A) 6**
Carbon has 6 protons.

Q32 · Answer: **(D) 7**
Neutral water has pH 7.

Q33 · Answer: **(D) 2**
36 ÷ 18 = 2.

Q34 · Answer: **(B) argon**
Argon is in group 18.

Q35 · Answer: **(C) C_nH_{2n+2}**
Saturated hydrocarbons.

Q36 · Answer: **(A) ionic**
Electron transfer from Na to Cl.

Q37 · Answer: **(C) hydrogen**
Zn + 2HCl → $ZnCl_2$ + H_2.

Q38 · Answer: **(D) ethanol**
Two carbons with an -OH group.

Q39 · Answer: **(D) oxidation**
Iron combines with oxygen.

Q40 · Answer: **(B) fluorine**
Fluorine has the highest electronegativity.

Q41 · Answer: **(C) 11**
2 × 4 + 3 = 11.

Q42 · Answer: **(D) 1**
Fundamental identity.

Q43 · Answer: **(C) $3x^2$**
$d/dx\ x^n = nx^{n-1}$.

Q44 · Answer: **(C) 210**
20 × 21 / 2 = 210.

Q45 · Answer: **(B) 2 and 3**
(x − 2)(x − 3) = 0.

Q46 · Answer: **(C) $x^2 + C$**
Antiderivative of 2x.

Q47 · Answer: **(C) 6**
3! = 6.

Q48 · Answer: **(D) 20**
$\det(kA) = k^2 \cdot \det A$ for 2 × 2.

Q49 · Answer: **(D) 3**
y = 3x + 4.

Q50 · Answer: **(D) 3/4**
1 − P(no head) = 1 − 1/4.