TS EAMCET 2026 May 9 Shift 1

Question Paper (Memory-Based)

Conducted by JNTU, Hyderabad)

General Instructions

(i) The test is of 3 hours duration.

(ii) This test paper consists of 160 questions. The maximum marks are 720.

(iii) Physics and Chemistry contains 40 questions each and Mathematics contains 80 questions.

(iv) Each question carries +1 marks for correct answer and there is no negative marking for wrong answer.

1. In a shelf there are three mathematics and two physics books. A student takes a book randomly. If he randomly takes, successively for three time by replacing the book already taken every time, then the mean of the number of mathematics books which is treated as random variable is

(A) $\frac{3}{2}$
(B) $\frac{129}{125}$
(C) $\frac{9}{5}$
(D) $\frac{174}{125}$

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2. One of the roots of the equation $(x+1)^4+81=0$ is

(A) $3\left(\frac{1+i}{\sqrt{2}}\right)$
(B) $-\left(\frac{3+\sqrt{2}+3i}{\sqrt{2}}\right)$
(C) $-\left(\frac{3+\sqrt{2}+i}{\sqrt{2}}\right)$
(D) $-\left(\frac{3+3i}{\sqrt{2}}\right)$

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3. The value of the greatest integer k satisfying the inequation $2^{n+4}+12 \geq k(n+4)$ for all $n \in N$ is

(A) 7

(B) 8

(C) 9

(D) 10

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4. If the system of simultaneous linear equations $x-2y+z=0$, $2x+3y+z=6$ and $x+2y+pz=q$ has infinitely many solutions, then

(A) $p+q=4$

(B) $pq=\frac{48}{49}$

(C) $q-p=3$

(D) $\frac{p}{q}=4$

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5. If three dice are thrown, then the mean of the sum of the numbers appearing on them is

(A) 58.5

(B) 76.66

(C) 71.75

(D) 10.5

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6. A Carnot engine uses diatomic gas as a working substance. During the adiabatic expansion part of the cycle, if the volume of the gas becomes 32 times its initial volume, then the efficiency of the engine is

(A) 100%

(B) 75%

(C) 50%

(D) 25%

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7. A man of mass 60 kg is standing in a lift moving up with a retardation of 2.8 ms^{-2}. The

apparent weight of the man is

(A) 756 N

(B) 168 N

(C) 588 N

(D) 420 N

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8. For which of the following Reynold's number, a flow is streamlined?

(A) 900

(B) 2100

(C) 2900

(D) 4000

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9. The electron in hydrogen atom undergoes transition from higher orbits to an orbit of radius 476.1 **pm. This transition corresponds to which of the following series?**

(A) Lyman

(B) Paschen

(C) Balmer

(D) Pfund

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10. The order of negative standard potential values of Li, Na, K is

(A) Li > Na > K

(B) K > Na > Li

(C) Na > K > Li

(D) Li > K > Na
