GENERAL INSTRUCTIONS: (shall be followed at the time of Admission)

1. Mark your answer at the appropriate space on your answer sheet with lead pencil.
2. There will be no negative marking.
3. Follow the instructions of the test controller and stop writing when you are told to do so.
4. Calculators / gadgets of any kind are not allowed.
5. Mobile phones are not allowed in the examination venue.
6. Test paper along with answer sheet must be returned at the end of the test.
7. Rough work, if required, may be done on the blank sides of this test paper. Separate sheet will not be provided.
8. All the questions are self-explanatory. Do not ask for any clarification.

SECTION-I ENGLISH

(A) GRAMMAR (10 minutes, 20 Questions)
(B) PASSAGE READING (18 minutes, 20 Questions)
(C) ESSAY WRITING (20 minutes)

GRAMMAR

Consequently, Phillip sailed northward in search of (1) _______ (the, a, an) better location, which was discovered quickly. After they (2) ___________ (had unloaded, unload, were loading) the people and supplies from the ships, Phillip claimed the entire coast for Britain

PASSAGE READING

Two pages of text to be read in 12 minutes followed by twenty questions to be answered.

SECTION – II MATHEMATICS & WORD PROBLEMS

(A) QUICK MATHS (15 minutes, 15 Questions)
(B) WORD PROBLEMS (15 minutes, 10 Questions)
QUICK MATHS

1- If \( x = 3 - 2\sqrt{2} \) then \( x + \frac{1}{x} \) will be:
   a. 8  b. 12  c. 6  d. 9

2- The value of the determinant \( \begin{vmatrix} 2 & -4 \\ 6 & 8 \end{vmatrix} \) is:
   a. -8  b. 40  c. 39  d. 28

WORD PROBLEMS

If a fruit seller buys bananas at Rs.16 per dozen and sells at Rs.20 per dozen, he earns the profit at:
   1. 4%  b. 20%  c. 25%  d. 50%

SECTION -III  I.Q.

I.Q QUESTIONS (10 minutes, 15 Questions)

Which one of the five is least like the other?
   a. Touch  b. Taste  c. Hear  d. Sleep  e. none

SECTION-IV  GENERAL KNOWLEDGE

(07 minutes, 10 Questions)
SAMPLE TEST PAPER (for Bachelor of Engineering Candidates)

SECTION-I  ENGLISH

(A) GRAMMAR (10 minutes, 20 Questions)
(B) PASSAGE READING (18 minutes, 20 Questions)
(C) ESSAY WRITING (20 minutes)

GRAMMAR

Consequently, Phillip sailed northward in search of (1) _______ (the, a, an) better location, which was discovered quickly. After they (2) ___________ (had unloaded, unload, were loading) the people and supplies from the ships, Phillip claimed the entire coast for Britain.

PASSAGE READING

Two pages of text to be read in 12 minutes followed by twenty questions to be answered

SECTION–II MATHEMATICS

\[ \frac{y^2}{9} - \frac{x^2}{4} = 1 \]

The foci of the hyperbola \[ \frac{y^2}{9} - \frac{x^2}{4} = 1 \] lie on the line:

a) \( x = 0 \)  

b) \( y = 0 \)  

c) \( x = 3 \)  

d) \( y = 4 \)

\[ \int_{x=0}^{\infty} \frac{1}{(1+2^2)^{\frac{3}{2}}} \]

is equal to:

a) 0  

b) e  

c) \(-1\)  

d) 1

50. If \( y = e^{-x} \), then the 4th derivative \( y^{(4)} \) at \( x = 1 \) is:

a) \( e \)  

b) \( e^{-x} \)  

c) \( e \)  

d) \( e^x \)

SECTION – III - PHYSICS

The dimensions of power are:

(a) ML2T-2  

(b) ML 2T2  

c) ML 2T-1  

d) ML -1T-1

The special theory of relativity was published in 1950 by:

(a) Lorentz  

(b) Schrodinger  

c) Einstein  

d) Max Plank

One inch is equal to:

(a) 0.254 cm  

(b) 2.54 cm  

c) 2.45 cm  

d) 2.98 cm