

GATE AE - 2016

EE24BTECH11061 - Rohith Sai

SINGLE CORRECT 1 MARK EACH

- 1) The chairman requested the aggrieved shareholders to _____ him.

| | |
|--------------|--------------|
| a) bare with | c) bear with |
| b) bore with | d) bare |

- 2) Identify the correct spelling out of the given options:

| | |
|---------------|--------------|
| a) Managable | c) Mangaable |
| b) Manageable | d) Managible |

- 3) Pick the odd one out in the following:
13, 23, 33, 43, 53

| | |
|-------|-------|
| a) 23 | c) 43 |
| b) 33 | d) 53 |

- 4) R2D2 is a robot. R2D2 can repair aeroplanes , No other robot can repair aeroplanes.
Which of the following can be logically inferred from the above statements?

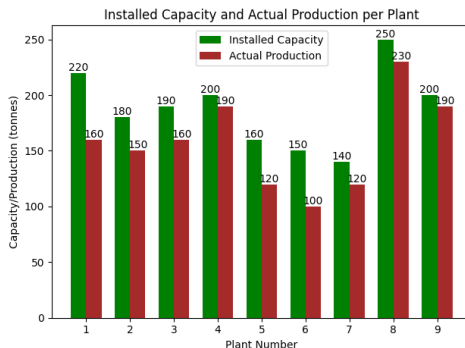
| | |
|--|--|
| a) R2D2 is a robot which can only repair aeroplanes. | c) R2D2 is a robot which can repaie only aeroplanes. |
| b) R2D2 is the only robot which can repair aeroplanes. | d) Only R2D2 is a robot. |

- 5) If $|9y - 6| = 3$, then $y^2 - 4y/3$ is _____

| | |
|---------|--------------|
| a) 0 | c) -1/3 |
| b) +1/3 | d) undefined |

SINGLE CORRECT 2 MARKS EACH

- 6) The following graph represents the installed capacity for cement production (in tonnes) and the actual production (in tonnes) of nine cement plants of a cement company. Capacity utilization of a plant is defined as ratio of actual production of cement to installed capacity. A plant with installed capacity of at least 200 tonnes is called a large plant and a plant with lesser capacity is called a small plant. The



difference between total production of large plants and small plants, in tonnes is _____.

- 7) A poll of students appearing for masters in engineering indicated that 60% of the students believed that mechanical engineering is a profession unsuitable for women. A research study on women with masters or higher degrees in mechanical engineering found that 99% of such women were successful in their professions.

Which of the following can be logically inferred from the above paragraph?

- Many students have misconceptions regarding various engineering disciplines.
 - Men with advanced degrees in mechanical engineering believe women are well suited to be mechanical engineers.
 - Mechanical engineering is a profession well suited for women with masters or higher degrees in mechanical engineering.
 - The number of women pursuing higher degrees in mechanical engineering is small.
- 8) Sourya committee had proposed the establishment of Sourya Institutes of Technology (SITs) in line with Indian Institutes of Technology (IITs) to cater to the technological and industrial needs of a developing country.

Which of the following can be logically inferred from the above sentence?

Based on the proposal,

- In the initial years, SIT students will get degrees from IIT.
- SITs will have a distinct national objective.
- SIT like institutions can only be established in consultation with IIT.
- SITs will serve technological needs of a developing country.

- (iii) and (iv) only.
- (i) and (iv) only.
- (ii) and (iv) only.
- (ii) and (iii) only.

- 9) Shaquille O' Neal is a 60% career free throw shooter, meaning that he successfully makes 60 free throws out of 100 attempts on average. What is the probability that he will successfully make exactly 6 free throws in 10 attempts?

a) 0.2508

c) 0.2934

b) 0.2816

d) 0.6000

10) The numerical in the units position of $211^{870} + 146^{127} \times 3^{424}$ is _____ .