GATE Questions 14

EE24BTECH11012 - Bhavanisankar G S

1) I am not sure if the bus that hasbeen booked will be able to   all the students.

   a) sit   b) deteriorate   c) fill   d) accomodate

2) The passengers were angry the airline staff about the delay.

   a) on   b) about   c) with   d) towards

3) The missing number in the given sequence 343, 1331, , 4913 is

   a) 3375   b) 2744   c) 2197   d) 4096

4) It takes two hours for a person X to mow the lawn. Y can mow the same lawn in
   four hours. How long (in minutes) will it take X and Y, if they work together to
   mow the lawn ?

   a) 60   b) 80   c) 90   d) 120

5) Newspapers are a constant source of delight and recreation for me. The trouble is
   that I read many of them.

   a) even, quite   c) only, quite
   b) even, too   d) only, too

6) How many integers are there between 100 and 1000 all of whose digits are even ?

   a) 60   b) 80   c) 100   d) 90

7) The ratio of the number of boys and girls who participated in an examination is
   4:3. The total percentage of candidates who passed the examination is 80 and the
   percentage of girls who passed is 90. The percentage of boys who passed is

   a) 55.50   b) 72.50   c) 80.50   d) 90.00

8) An award-winning study by a group of researchers suggests that men are as prone
   to buying on impulse as women but women feel more guilty about shopping.
   Which one of the following statements can be inferred from the given text ?
   a) Some men and women indulge in buying on impulse
   b) All men and women indulge in buying on impulse

c) Few men and women indulge in buying on impulse

d) Many men and women indulge in buying on impulse

9) Given two sets $X = \{1, 2, 3\}$ and $Y = \{2, 3, 4\}$ we construct a set Z of all possible fractions where the numerators belong to set X and the denominators belong to set Y. The product of elements having minimum and maximum values in the set Z is

a) $\frac{1}{12}$ b) $\frac{1}{8}$ c) $\frac{1}{6}$ d) $\frac{3}{8}$

10) Consider five people - Mita, Ganga, Rekha, Lakshmi and Sana. Ganga is taller than both Rekha and Lakshmi. Lakshmi is taller than Sana. Mita is taller than Ganga. Which of the following conclusions are true ?

A. Lakshmi is taller than Rekha.

B. Rekha is shorter than Mita.

C. Rekha is taller than Sana.

D. Sana is shorter than Ganga.

a) 1 and 3   c) 2 and 4

b) 3 only   d) 1 only

11) The inverse Laplace transform of $H(s) = \frac{s+3}{s^2+2s+1}$ for $t \geq 0$ is

a) $3te^{-t} + e^{-t}$ c) $2te^{-t} + e^{-t}$

b) $3e^{-t}$ d) $4te^{-t} + e^{-t}$

12) M is a 2×2 matrix with eigen-values 4 and 9. The eigen values of M^2 are

a) 4 and 9   c) -2 and -3

b) 2 and 3   d) 16 and 81

13) The partial differentiation equation

$$\frac{\partial^2 u}{\partial t^2} - c^2\left(\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2}\right) = 0, c \neq 0$$

is known as

a) heat equation   c) Poisson's equation

b) wave equation   d) Laplace equation