2016-GATE-EE-1-13

EE24BTECH11028-JADHAV RAJESH

1) The man wno is now municipal commissioner worked as

   a) the security guard at a university

   b) a security guard at a university

   c) a security guard at university

   d) the security guard at the university

2) Noboby knows how the indian cricket team is going to cope with the difficult and seamer-friendly wickets in Australia.

   Choose the option which is closet in meaning to the underlined phrase in the above sentance

   a) put up with

   b) put in with

   c) put down to

   d) put up against

3) Find the odd in the following group of words. mock, deride, praise, jeer

   a) mock

   b) deride

   c) praise

   d) jeer

4) Pick the odd one from the following options.

   a) CADBE

   b) JHKIL

   c) XVYWZ

   d) ONPMQ

5) In a quaadratic function, the value of the product of the roots (α, β) is 4.Find the value of
$$\frac{\alpha^n + \beta^n}{\alpha^{-n} + \beta^{-n}}$$

   a) n^4

   b) 4^n

   c) 2^{2n-1}

   d) 4^{n-1}

6) Among faculty members in an institution,55 are connected with each other through facebook and 85 are connected through WhatsApp. 30 facult members do not have Facebook or WhatsApp accounts.The number of faculty members connected only through Facebook accounts is

   a) 35

   b) 45

   c) 65

   d) 90

7) Computers were invented for performing only high-end useful computations.However,it is no understatement that they taken over our world today.The internet for example ,is ubiquitous.Many believe that the internet itself is an unintended conseqquene of the original invention.With the advent of mobile computing on our phoses, a whole new dimension is enabled.One is wondering if all these development are good or, more impotantly,requied.
   which of the statement(s) below is/are logically valid and be inferred from the above

paragraph?
(*i*) The author believes that computers are not good for us. (*ii*) Mobile computers and the internet are both intended inventions

a) (*i*) only

b) (*ii*) only

c) both(*i*) (*ii*)

d) neither(*i*) (*ii*)

8) All hill-stations a lake.Ooty has two lakes. Which of the statement(*t*) below is/are logically valid and can be inferred from the above sentances
(*i*) Ooty is not ahill-station.
(*ii*) No hill-station can have more than one lake.
a) (*i*) only

b) (*ii*) only

c) both(*i*) and (*ii*)

d) neither(*i*) nor (*ii*)

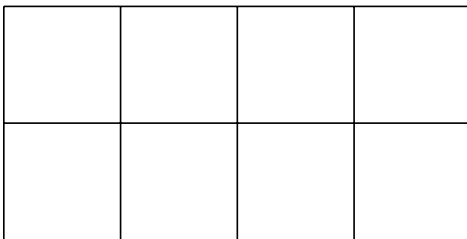9) In a $2 * 4$ rectangle grid shown below,each cell is a rectangle.How many rectangle can be observed in the grid?

Fig. 1.

a) 21

b) 27

c) 30

d) 36

10) Choose the correct expression for $f(x)$ given in the graph.
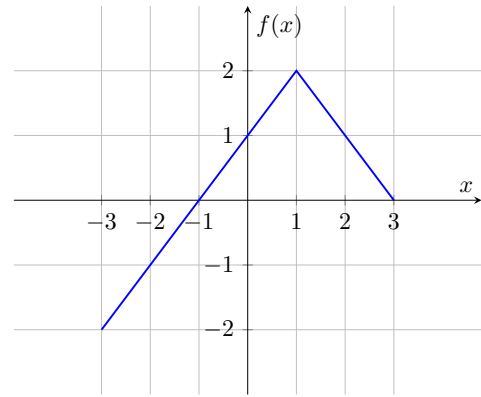a) $f(x) = 1 - |x - 1|$

Fig. 2.

b) $f(x) = 1 + |x - 1|$

c) $f(x) = 2 - |x - 1|$

d) $f(x) = 2 + |x - 1|$

11) The maximum value attained by the function $f(x) = x(x-1)(x-2)$ in the interval $[1, 2]$ is.

12) consider a $3*3$ matrix with every element being equal to 1.Its only non zero eigenvalue is.

13) The Laplace Transform of $f(t) = e^{2t} \sin(5t) u(t)$ is.
a) $\frac{5}{s^2 - 4s + 29}$

b) $\frac{5}{s^2 + 5}$

c) $\frac{s-2}{s^2 - 4s + 29}$

d) $\frac{5}{s+5}$