

# CETking

## MockEngineering

### Program

# CET 2010

# Solutions

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**CETking Workshops** - Increase your score by 20 marks in CET!

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[ANSWERS I

1	2	3	4	5	6	7	8	9	10
C	C	C	A	D	B	B	C	D	C
11	12	13	14	15	16	17	18	19	20
D	A	C	A	C	B	D	E	A	E
21	22	23	24	25	26	27	28	29	30
B	B	D	A	C	C	D	A	B	B
31	32	33	34	35	36	37	38	39	40
B	C	D	A	E	B	E	C	A	O
41	42	43	44	45	46	47	48	49	50
E	A	B	E	C	A	E	B	B	E
51	52	53	54	55	56	57	58	59	60
E	A	C	A	A	E	C	D	A	B
61	62	63	64	65	66	67	68	69	70
D	A	E	B	C	C,	E	B	A	D
71	72	73	74	75	76	77	78	79	80
A	C	A	B	E	B	D	E	C	A
81	82	83	84	85	86	87	88	89	90
D	C	E	C	E	A	D	E	E	E
91	92	93	94	95	96	97	98	99	100
B	C	C	B	E	D	C	B	A	A
101	102	103	104	105	106	107	108	109	110
C	D	C	D	A	E	E	B	C	B
111	112	113	114	115	116	117	118	119	120
E	C	O	B	E	E.	E	C	D	E
121	122	123	124	125	126	127	128	129	130
E	A	A	D	C	A	E	C	D	E
131	132	133	134	135	136	137	138	139	140
C	A	C	B	A	C	D	E	B	E
141	142	143	144	145	146	147	148	149	150
B	B	C	D	A	A	B	B	C	D.
151	152	153	154	155	156	157	158	159	160
D	E	B	D	A	D	B	A	D	C
161	162	163	164	165	166	167	168	169	170
D	B	D	D	D	E	A	D	A	C
171	172	173	174	175	176	177	178	179	180
A	B	C	A	O	A	B	O	C	D
181	182	183	184	185	186	187	188	189	190
O	A	C	A	E	D	A	A	B	A
191	192	193	194	195	196	197	198	199	200
O	B	D	c	D	E	E	A	D	E

[SOME SELECTED EXPLANATORY ANSWERS]

1. M(AGN)I, G(N)I, G(NIFICE)N

2. EARLY, LAYER

4. Each letter + 6 Steps

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5. Abhay - 16, 17, 18, 19, 20, 21, 22  
Yashir - 21, 22, 23, 24

7. WATCHDOG  
ACDGHOTW

$$11. ? = 5169 + 3072 - 4924$$

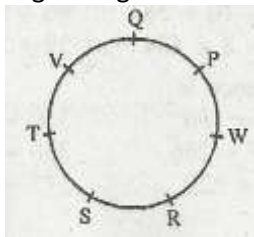
$$= 3317$$

$$13. ? = 100/3 \times 100 \times 1500 - 45/100 \times 860$$

$$= 500 - 387 = 113$$

Qs, 31 - 35

The seating arrangement is as follows:



$$41. ? = 312 \times 55 + 216 \times 39$$

$$= 17160 + 8424$$

$$= 25584 = 25600$$

$$42. 218 + \text{root of } 676 \times 25 = \text{root of } ? \times 108.5$$

$$\Rightarrow \text{root of } ? = 218 + \text{root of } 676 \times 25 / 108.5$$

$$= 218 + 26 \times 25 / 108.5$$

$$= 218 + 650 / 108.5 = 8 = ? = 64$$

$$43. ? \times 4040 / 100 = 40/100 \times 2600 + 35/100 \times 2800$$

$$= 1040 + 980 = 2020$$

$$? = 2020 \times 100 / 4040 = 50$$

$$45. 24.16 \times ? = 11/2 + 2/3 \times 569$$

$$= 5.5 + 379.3 = 384.8$$

$$? = 384.8 / 24.16 = 15.9 = 16$$

61. The sequence is multiply by n plus n square  
 $a \times 1 + 1, b \times 2 + 4, c \times 3 + 9 \dots \Rightarrow 51 \times 4 + 16 = 404 + 16 = 220$

62. The sequence is  
 $\times 1/2 + 1/2 \times 1 + 1, \times 1.5 + 1.5 \dots$   
 $\Rightarrow 7 \times 1/2 + 1/2 = 4$

63. The sequence is  
 $, 1600/2 - 12 = 788$   
 $788 + 2 - 10 = 384$

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$$384 + 2 - 8 = 184$$

$$184 + 2 - 6 = 86$$

$$86 + 2 - 4 = 39$$

$$39 + 2 - 2 = 17.5$$

64. The sequence is

$$12 + 122 = 156$$

$$156 + 102 = 256$$

$$256 + 82 = 320$$

$$320 + 62 = 356$$

$$356 + 42 = 372$$

$$372 + 22 = 376$$

65. The sequence is

$$x \ 6, x \ 5.5, x \ 5, x \ 4.5, x \ 4, x \ 3.5$$

101. Input-gas 80 fire 73 16 32 old water

Step-I-16 gas 80 fire 73 32 old water

II-16 water gas 80 fire 7332 old

III-16 water 32 gas 80 fire 73 old

IV-16 water 32 old gas 80 fire 73

V-16 water 32 old 73 gas 80 fire

The V is the last but one of the arrangement.

105. Input-desk 23 paper 19 card 34 bridge 57

Step-I-19 desk 29 paper card 34 bridge 57

II-19 paper desk 29 card 34 bridge 57

III-19 paper 29 desk card 34 bridge 57

IV-19 paper 29 desk 34 card bridge 57

V -19 paper 29 desk 34 card 57 bridge

Hence, V will, be the last step.

106. Perimeter of semicircle

$$= r (\pi + 2) = 36/7r$$

$$\therefore 66 = r \left\{ \frac{22}{7} + 2 \right\} \Rightarrow 66$$

$$\therefore r = \frac{66}{36} \times 7 = \frac{77}{6} \text{cm.}$$

$$\therefore \text{Area of the semicircle} = \frac{\pi r^2}{2} = \frac{22}{7} \times \frac{77}{6} \times \frac{77}{6} = 517.61 \text{cm.}$$

108. Let, the first number be, x and the second number be y from question

30% of x = 45% of y

$$30x/100 = 45y/100 = 30x = 45y$$

$$\therefore x/y = 30/5 = 2/3$$

$$\therefore \text{Required ratio} = 2 : 3$$

110. Speed = distance/ time = 240/72 x 100

$$\therefore \text{Time} = \text{distance/ speed} = 360 \times 72/240 \times 100 = 108/100$$

$$= 1.08 \text{ seconds}$$

111. The designs proceed according to question I figure (A) question figure (E). Similarly design of answer figure change according to question figure (B).

113. The designs of question figure (A) is arranged similar to question figure (D) only colours is changed, Thus the next design will be arranged similar to question figure (C) and colour will be changed.

Qs. 131-135

@ d \* © \$  
> < <\_ >\_ =

131. M<\_ K>\_ D > J < T

I. T > D (False)

II. J < K (False)

III. M > D (False) .

IV. K < T (False)

132. R >\_ D > M = W <\_ H

I. R > W (True)

II. W < D (True)

III. H > M (True)

IV, H= M true

133. H > F >\_ T = R < K

I. R <\_ F (True)

II. H > R (True)

III. J > H (False)

IV. K > T (True)

134. K < B <\_ N > V >\_ Z

I. K < V (False)

II. Z < N (True)

III. N > K (True)

IV. Z > B (False)

135. J <\_ R = N < W > K

I. K < N (False)

II. J < K (False)

III. N = J true

IV. N > J true

136. Let length be x and area be 30x.

$$\therefore \text{breath} = 30x/x = 30\text{m}$$

$$\text{Perimeter} = 2(x + 30)$$

$$\Rightarrow 150 = 2(x + 30)$$

$$\Rightarrow 75 = x + 30$$

$$\therefore x = 75 - 30 = 45 \text{ m.}$$

140. Word CRATER has 6 letter so it can be arranged in 6/1 ways = <6/<1

$$= 6 \times 5 \times 4 \times 3 \times 2 \times 1 / 1 = 720$$

Qs. 141 - 150

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Candidate	XII 60%	Grad. 55%	Exp. 2 yrs	Ent. 45%	Inter. 40%	Fees
Sohan	√	√	√	√	√	√
Sulekha	√	√	√	√	√	√
Anjan	√	×A	√	√	√	√
Abhinav	√	√	√	√	√	×B
Suhas	√	√	√	×	√	√
Neha	√	×	√	√	√	√
Sudha	√	√	√	√	√	√
Navin	Not given	√	√	√	√	√
Arun	√	×A	√	√	√	√
Joseph	√	√	√	√	√	×B

167. Decrease per cent in year 2002 is maximum.

168. The total number of applicants for all the years together for institute 'B' was only 76 thousands. It is least number.

169. Total no. of Applicants for E in 2003 = 24,000

Total no. of Applicants. for E in 2004 = 28,000

Total = 52,000

Total no. of Applicants for A in 2005 = 28,000

Total no. of Applicants for A in 2006 = 30,000

Total = 58,000

∴ Difference = 58,000 - 52,000 = 6,000

170. The no. of Applicants for D in 2004 = 16,000

The no. of Applicants for C in 2001 = 42,000

amount in per cent of D' in respect to C

=  $16,000/42,000 \times 100 = 38.09\%$

= 38% Approx

176. Number of students opted for HR in institute 'B'

=  $315 \times 15/100 = 189/4 = 47$  students

∴ No. of male students opted for H.R. in institute 'B'

=  $4/7 \times 47 = 188/7 = 27$  students

177. Approx no. of Students opted for Systems in 'D'

=  $495 \times 15/100 = 297/4 = 74 = 75$  approx

178. No. of female student in C =  $285 \times 1/3 = 95$

No. of male student in E =  $430 \times 7/10 = 301$

∴ Ratio =  $95/301 = 95:301$

179. Average percentage =  $34 + 26 + 36 + 35 + 31 / 5$

=  $162/5 = 32$  (Approx)

180. No. of male student for finance in 'A'

=  $280 \times 23/100$

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$= 161/4 = 40$   
 No. of students for Systems in C  
 $= 285 \times 17/100$   
 $= 4845/100 = 48$   
 $\therefore$  Total no. =  $40 + 48 = 88$

Qs. 184-188

	-Arts	Commerce	Science	Total
2003.	50	40	55	145
2004	60	50	70	180
2005	45	60	50	155
2006	55	75	65	195
2007	65	80	70	215
2008	70	85	90	245
2009	80	70	85	235
Total	425	460	485	

184. Required Average per cent =  $460/7 = 65.7$   
 $= 65\%$  (Approx)

185. Maximum difference in pass percentage b/w arts and Science =  $90 - 70 = 20$  in 2008

186. Required average =  $80+70 / 2 = 150/2 = 75$

187. Minimum average pass per cent is  $145/3$   
 $= 38.33\%$  in year 2003

188. The pass percentage of commerce students in 2005 = 60% and the pass percentage of art students is same in 2004.

Qs. 19~196

	P.Type	Q.Type	R.Type	Total
2000	13	10	20	43
2001	15	18	22	55
2002	27	20	30	77
2003	20	22	15	57
2004	32.5	27	25	85
Total	107.5	97	112	

192. Percentage increase ==  $(27 - 15) / 15 \times 100$   
 $= 12 \times 100 / 15 = 80\%$

193. Average production in 2001 =  $55 \text{ Lakh} / 3$   
 $= 18.3 \text{ lakhs}$

194. Maximum production of cellphone was 85 lakhs in 2004.

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195. The production of P type phones in 2004 = 33 lakhs

The production of Q type of phones in 2000 = 10 lakhs

∴ Required percentage =  $32.5 \times 100 / 10 = 325\%$

196. The total percentage of Q and R type phones in 2003 = 37 lakhs

And it not same to the total of P and R type in any given years.