



Goa Staff Selection Commission
6th Floor,3rd Lift,SPACES Building,Patto Plaza, Panaji-Goa - 403001

Computer Based Test
Post Name : Junior Engineer (Electrical)

Question Description	Select the phrase to the idiom of : “ Worth its weight in gold ”
A	To be highly valuable.
B	Holding empty vision.
C	Write aimless tomorrow.
D	All wonder and no aim.
E	None of the above
Correct Answer	A
Marks	1

Question Description	Select a single word which means most nearly the same as the given idiomatic phrase: Under the weather
A	Excited
B	Sick
C	Relaxed
D	Content
E	None of the above
Correct Answer	B
Marks	1

Question Description	Explain the phrase to the idiom of “ Make a long story short ”.
A	To say something in few words.
B	Show your weaker, stronger areas.
C	Enhance the story and make it long.
D	Play a critical role while telling.
E	None of the above
Correct Answer	A
Marks	1

Question Description	Select a single word which means most nearly the same as the given idiomatic phrase: Cost an arm and a leg
A	Dangerous
B	Precarious
C	Expensive
D	Risky
E	None of the above
Correct Answer	C
Marks	1

Question Description	Choose the correct idiom for the given underlined meaning: After overworking for quite some time, you are quite <u>exhausted</u> .
A	done with
B	done up
C	done by
D	done over
E	None of the above
Correct Answer	B
Marks	1

Question Description

Read the given idioms and answer the question that follow:

- A. A breath of fresh air
- B. As snug as a bug in a rug
- C. In a tight spot
- D. On pins and needles

Which two idioms convey ' comfort ' ?

A

A and B

B

A and D

C

B and C

D

C and D

E

None of the above

Correct Answer

A

Marks

1

Question Description	Choose the correct positive degree form of the given sentence: Asia is the largest continent in the world.
A	No other continent in the world is as large as Asia.
B	Asia is larger than any other continent in the world.
C	Very few continents in the world are as large as Asia.
D	Asia is larger than most other continents in the world.
E	None of the above
Correct Answer	A
Marks	1

Question Description	Choose the correct passive voice form of the given sentence: Switch on the light.
A	The light should be switched on.
B	Let the light be switched on.
C	The light is switched on.
D	The light has been switched on.
E	None of the above
Correct Answer	B
Marks	1

Question Description	Choose the correct indirect speech form of the sentence: I said , " I am glad to be here this evening."
A	I said that I was glad to be there that evening.
B	I said that I am glad to be there that evening.
C	I said that I had been glad to be here that evening.
D	I said that I was glad to be here this evening.
E	None of the above
Correct Answer	A
Marks	1

Question Description	Choose the correct indirect speech form of the sentence: He said to me , " Where do you live?"
A	He asked me where I lived.
B	He asked me where I am living.
C	He asked me where I live.
D	He asked me where I was living.
E	None of the above
Correct Answer	A
Marks	1

Question Description	What is the past participle of ' Forsake '
A	Forsaked
B	Forsook
C	Forsaken
D	Forsaking
E	None of the above
Correct Answer	C
Marks	1

Question Description	What is the past participle of ' Bid ' ?
A	Bidded
B	Bade
C	Bidden
D	Bidding
E	None of the above
Correct Answer	C
Marks	1

Question Description A _____ of rubbish.

A hedge

B heap

C bunch

D bevy

E sloth

Correct Answer B

Marks 1

Question Description Select the collective noun for:

a _____ of smoke.

A hail

B deift

C gaze

D dusk

E None of the above

Correct Answer E

Marks 1

Question Description

Choose the best alternative:

Appalling : Pleasing :: Captivating : _____

A

Boring

B

Engaging

C

Fascinating

D

Enchanting

E

None of the above

Correct Answer

A

Marks

1

Question Description	In the following sentence one of the four parts has an error. Write the letter corresponding to the error: A – Hardly had the children B – finished their homework C – than they rushed outside D – to play in the park.
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

Question Description	Give the meaning of the following word: Jargon
A	Suspect that something is wrong, in some way or other and to state clearly , without holding back.
B	Special words or expressions that are used by a particular profession or group and are difficult for others to understand .
C	They consist of verbs and words easy to understand , therefore it is being used along with the other words.
D	Do something in anger and hostile way to irritate others on an issue to argue or source of grudge on people.
E	None of the above
Correct Answer	B
Marks	1

Question Description	The synonym for the word: versatile
A	The trump card, time in hand, you may lose the game.
B	English_syn_ant_3 drama for the cards to play, the trump card.
C	Inflexible to different functions and own act of play.
D	It signifies a decisive advantage or a secret resource.
E	None of the above
Correct Answer	E
Marks	1

Question Description	Give the meaning for the word : Innovative
A	Fresh probe plea to ploy always the same.
B	Fortune favors the bold in old ideas, fixity.
C	An eye for an eye makes the world true .
D	Introducing, using new ideas and methods.
E	None of the above
Correct Answer	D
Marks	1

Question Description	A group of soldiers being commanded by a lieutenant is called
A	Duncant
B	Simplistic
C	Platoon
D	Entenders
E	None of the above
Correct Answer	C
Marks	1

Question Description	The annual energy saving potential for an installation with total load of 1 KW, annual operating hours of 700 and ILER of 0.5 is
A	400 KWH
B	350KWH
C	622 KWH
D	266 KWH
E	None of the above
Correct Answer	B
Marks	1

Question Description	Three resistors of 6Ω are connected in parallel. What will be the equivalent resistance?
A	9Ω
B	6Ω
C	18Ω
D	2Ω
E	None of the above
Correct Answer	D
Marks	1

Question Description	The load voltage of a chopper can be controlled by varying the
A	Duty cycle
B	Firing angle
C	Reactor position
D	Extinction angle
E	None of the above
Correct Answer	A
Marks	1

Question Description	State which of the following statement is correct for Synchronous motor
A	Not self starting motor
B	Operates at constant speed
C	Operates at wide range of power factor
D	All of the above
E	None of the above
Correct Answer	D
Marks	1

Question Description	Relay get its operating power from
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A	Transformer
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B	Alternator
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C	Overhead lines
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D	CT, PT
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E	None of the above
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Correct Answer	D
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Marks	1
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Question Description	Which of the following heating element has the lowest operating temperature
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A	Graphite
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B	Kanthal
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C	Eureka
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D	Nichrome
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E	None of the above
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Correct Answer	C
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Marks	1
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Question Description	A good voltage regulation of a transformer means
A	Output voltage fluctuations from No load to full load is least
B	Output voltage fluctuations with power factor is least
C	Difference between primary and secondary voltage is least
D	Difference between primary and secondary voltage is maximum
E	None of the above
Correct Answer	A
Marks	1

Question Description	In a overcurrent protection the setting of the earth fault relay is
A	More than the phase fault relay
B	Equal to phase fault relay
C	Less than phase fault relay
D	The two settings are unrelated to each other
E	None of the above
Correct Answer	C
Marks	1

Question Description	The main objective of energy management is to
A	Minimize energy cost
B	Minimize environmental effect
C	Maintain optimum energy procurement and utilization
D	All of the above
E	None of the above
Correct Answer	D
Marks	1

Question Description	A three phase induction motor is running at 4% slip, if the input to the rotor is 1000 W, then the mechanical power developed by the motor will be
A	960 W
B	9600W
C	96 W
D	0.96 W
E	None of the above
Correct Answer	A
Marks	1

Question Description	Which of the following relay is used for protection of feeders and large busbars
A	Under frequency relay
B	Buchholz relay
C	Distance relay
D	Differential relay
E	None of the above
Correct Answer	D
Marks	1

Question Description	A motor has to supply the following load cycle to a varying load. 20KW for 10 seconds, 10 KW for 20 seconds, 30 KW for 10 seconds and idle for 10 seconds in one load cycle. What will be the size of the motor required?
A	Square root (300) KW
B	Square root (350) KW
C	Square root (375) KW
D	Square root (325) KW
E	None of the above
Correct Answer	A
Marks	1

Question Description	A Zener diode is most commonly used as
A	Voltage Regulator
B	Rectifier
C	Amplifier
D	Multivibrator
E	None of the above
Correct Answer	A
Marks	1

Question Description	The rating of fuse is expressed in terms of
A	Volt-ampere
B	Ampere
C	Volts
D	KVAR
E	None of the above
Correct Answer	B
Marks	1

Question Description	Current in a 960 W , 240 V heater operated at 200 V is
A	2.5 A
B	3.33 A
C	0.33 A
D	0.25 A
E	None of the above
Correct Answer	B
Marks	1

Question Description	A factory draws an apparent power of 300 KVA at a lagging power factor of 0.65. The reactive power drawn by the factory is
A	300 KVAR
B	228 KVAR
C	195 KVAR
D	432 KVAR
E	None of the above
Correct Answer	B
Marks	1

Question Description	For accurately measuring the value of unknown resistance of medium value we can use
A	Ohm meter
B	Megger
C	Wheatstone's bridge
D	Kelvin's Bridge
E	None of the above
Correct Answer	C
Marks	1

Question Description	A voltage of 230 V is applied across a series AC circuit of $X_C = 25 \text{ ohm}$, $R = 15 \text{ ohm}$ and $X_L = 10 \text{ ohm}$. The phase angle between the applied voltage and circuit current is
A	Zero
B	45 degrees
C	60 degrees
D	30 degrees
E	None of the above
Correct Answer	B
Marks	1

Question Description	The pick up current of relay is 7.5 A and fault current in relay is 30 A . the PSM of relay will be
A	8
B	6
C	4
D	2
E	None of the above
Correct Answer	C
Marks	1

Question Description	The negative sequence current flowing in stator winding of three phase induction motor will
A	Cause high heat in the stator
B	Cause high heat in the rotor
C	Causes burning of stator winding
D	Will not affect the stator as well as rotor
E	None of the above
Correct Answer	B
Marks	1

Question Description	In DC motors, the carbon brushes are preferred to copper brushes because
A	They have longer life
B	They have lower resistance
C	They are easily available
D	They reduce sparking
E	None of the above
Correct Answer	D
Marks	1

Question Description	Nodal analysis is based on
A	Kirchhoff's Current law
B	Kirchhoff's Voltage law
C	Maxwell's law
D	Kirchhoff's magnetic law
E	None of the above
Correct Answer	A
Marks	1

Question Description	Suspension type insulators are used for voltages beyond
A	400 V
B	6.6 KV
C	11 KV
D	33 KV
E	None of the above
Correct Answer	D
Marks	1

Question Description	The direction of force acting on a current carrying conductor placed in a magnetic field is given by
A	Faraday's left hand rule
B	Faraday's right hand rule
C	Fleming's left hand rule
D	Fleming's right hand rule
E	None of the above
Correct Answer	C
Marks	1

Question Description	The leakage reactance of transformer primary and secondary winding must be
A	Very small
B	Medium
C	Large
D	Infinite
E	None of the above
Correct Answer	A
Marks	1

Question Description	The insulation of modern EHV lines is designed based on
A	Lightning voltage
B	Corona
C	Radio interference
D	Switching voltage
E	None of the above
Correct Answer	D
Marks	1

Question Description	DC to AC conversion is required in
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A	Uninterrupted power supplies
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B	Variable speed AC motors
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C	DC transmission lines
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D	All of the above
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E	None of the above
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Correct Answer	D
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Marks	1
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Question Description	'I' Amperes of current is flowing through R_1 and R_2 which are connected in series with a voltage source 'E'. What happens to current 'I' value if R_1 and R_2 are connected in parallel instead. Given $R_1 = R_2$.
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A	'I' reduces by two times
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B	'I' increases by two times
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C	'I' reduces by four times
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D	'I' increases by four times
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E	None of the above
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Correct Answer	D
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Marks	1
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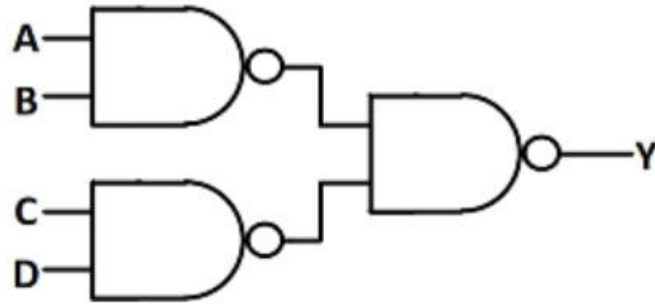
Question Description	In a network made up of Four linear resistors ('R' each) connected across an ideal voltage source ('V'), if the values of all the four resistors is doubled, then the voltage across each resistor becomes _____
A	V/2
B	V/4
C	8V
D	2V
E	None of the above
Correct Answer	A
Marks	1

Question Description	The short circuit loss in the alternators comprises of
A	Loss in armature winding
B	Core loss due to armature leakage and air gap flux
C	Windage and friction loss
D	All of the above
E	None of the above
Correct Answer	D
Marks	1

Question Description	Two linear and time invariant systems are connected in series. The overall impulse response is
A	Sum of individual impulse responses
B	Product of individual impulse responses
C	Convolution of individual impulse responses
D	Difference of individual impulse responses
E	None of the above
Correct Answer	C
Marks	1

Question Description

In the logic circuit shown in the figure, Y is given by

**A** $Y=ABCD$ **B** $Y=(A+B)(C+D)$ **C** $Y=A+B+C+D$ **D** $Y=AB+CD$ **E**

None of the above

Correct Answer

D

Marks

1

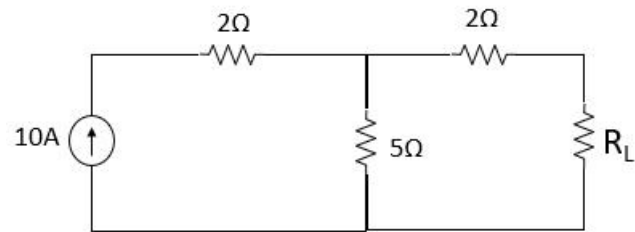
Question Description	Starting of large induction motor mainly causes
A	Voltage swell
B	Voltage sag
C	Harmonic distortion
D	Notching
E	None of the above
Correct Answer	B
Marks	1

Question Description	A voltage control bus is characterized by the specified
A	Real and reactive powers
B	Real power and voltage phase angle
C	Real power and voltage magnitude
D	Reactive power and voltage magnitude
E	None of the above
Correct Answer	C
Marks	1

Question Description	Three capacitors of $9\ \mu\text{F}$ each are connected in delta. The equivalent capacitance of the circuit is
A	$3\ \mu\text{F}$
B	$9\ \mu\text{F}$
C	$27\ \mu\text{F}$
D	Cannot be computed
E	None of the above
Correct Answer	C
Marks	1

Question Description

For what value of ' R_L ' is maximum power transferred to it, in the below circuit



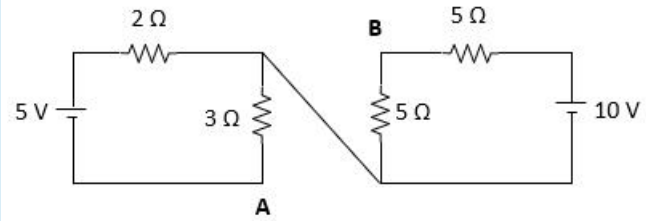
- A $7\ \Omega$
- B $5\ \Omega$
- C $14/9\ \Omega$
- D $10/7\ \Omega$
- E None of the above

Correct Answer

A

Marks

1

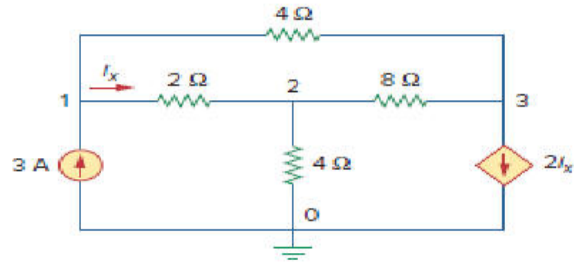
Question DescriptionCompute the value of V_{AB} in the below figure

A	10V
B	8V
C	15V
D	6V
E	None of the above
Correct Answer	B
Marks	1

Question Description	A 6 pole, 3 ϕ induction motor operates at a supply frequency of 50 Hz. The speed at which the magnetic field of the stator rotates is
A	3000 rpm
B	1500 rpm
C	1000 rpm
D	Data insufficient
E	None of the above
Correct Answer	C
Marks	1

Question Description

The voltages at the nodes 1, 2 and 3 respectively are



A 0 V, 2 V, and 5 V

B 2.2 V, 4.4 V, -4.4V

C 4.8 V, 2.4 V, -2.4V

D 1.8 V, -3.6V, 2.4V

E None of the above

Correct Answer C

Marks 1

Question Description	A 250:5 current transformer is used along with an ammeter. If ammeter reading is 2.7 A, the line current equals to
A	250 A
B	5 A
C	135 A
D	255 A
E	None of the above
Correct Answer	C
Marks	1

Question Description	The value of $a^3 - b^3$, if $a-b=5$, $ab=1$ is-----.
A	100
B	110
C	120
D	140
E	None of the above
Correct Answer	D
Marks	1

Question Description If $\log_{64} 8 = 1.8$, then value of $\log_8 64 =$ -----.

A 0.9

B 0.6

C 0.8

D 1

E None of the above

Correct Answer A

Marks 1

Question Description Out of 80 students who appeared in a combined test in science and Numeric_desc_2, 64 passed in at least one subject. If 45 passed in science and 52 passed in Numeric_desc_2. The number of students passed in both the subjects are -----.

A 30

B 33

C 45

D 40

E None of the above

Correct Answer B

Marks 1

Question Description	The string of a kite is 200m long, it makes an angle of 30° , with the ground. Then the height of the kite above the ground is:
A	175m
B	150m
C	100m
D	75m
E	None of the above
Correct Answer	C
Marks	1

Question Description	If each side of a square is increased by 20% then its area is increased by:
A	25%
B	30%
C	40%
D	44%
E	None of the above
Correct Answer	D
Marks	1

Question Description	The area of a square whose diagonal is 10 cm is -----.
A	20
B	30
C	40
D	50
E	None of the above
Correct Answer	D
Marks	1

Question Description	The sum of the squares of two numbers is 3341, and the difference of their squares is 891. Then the difference between the number is:
A	11
B	13
C	17
D	21
E	None of the above
Correct Answer	A
Marks	1

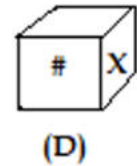
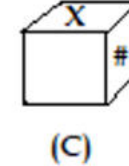
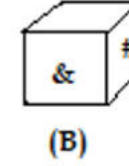
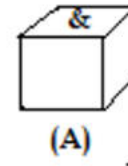
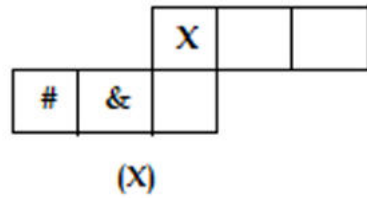
Question Description	The sum of three numbers is 132. If the first is twice the the second and third number is one third of the first, then the second number is:
A	32
B	36
C	48
D	60
E	None of the above
Correct Answer	B
Marks	1

Question Description	Two pipes X and Y can separately fill a tank in 2 hours and 3 hours respectively. If both the pipes are opened simultaneously in the empty tank, in what time the tank will be filled?
A	1 hour and 20 minutes
B	1 hour and 30 minutes
C	1 hour and 12 minutes
D	2 hours
E	None of the above
Correct Answer	C
Marks	1

Question Description	The speed of a boat in still water is 10 km/hr. It is rowed upstream for a distance of 45 km in 6 hours. The speed of the stream is -----.
A	3.5
B	7.5
C	6
D	2.5
E	None of the above
Correct Answer	D
Marks	1

Question Description

The sheet of paper in the figure (X) given on the left hand side, is folded to form a box. Choose the correct box/boxes from the alternative boxes named (A), (B), (C), (D) respectively, that is/are similar to the box that will be formed.



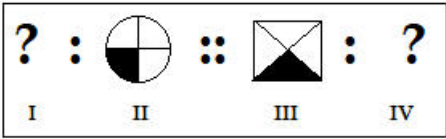
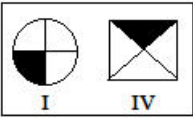
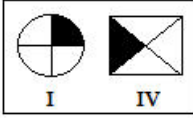
A

A only

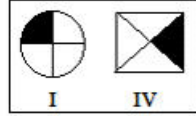
B

A, B and C only

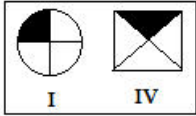
C	B and C only
D	A, B, C and D
E	None of the above
Correct Answer	D
Marks	1

<p>Question Description</p>	<p>In the following question, there are four figures marked I, II, III and IV which constitute the problem set. Select an option with contents which best substitutes the question marks such that figure III is related to figure IV in the same way as figure I is related to figure II.</p> <p style="text-align: center;">PROBLEM FIGURE</p> <div style="text-align: center;">  </div>
<p>A</p>	<div style="text-align: center;">  </div>
<p>B</p>	<div style="text-align: center;">  </div>

C



D



E

None of the above

Correct Answer

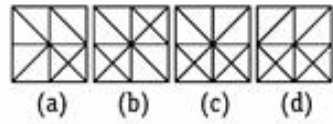
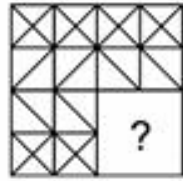
C (Question marked Invalid)

Marks

1

Question Description

From answer figures labeled a, b, c, and d which figure will complete the the following picture?



A

a

B

b

C

c

D

d

E

None of the above

Correct Answer

D

Marks

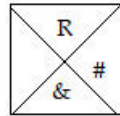
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Question Description

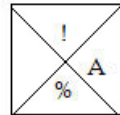
Which figure would continue the existing series?



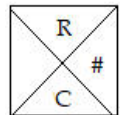
A



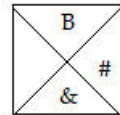
B



C



D



E

None of the above

Correct Answer

A

Marks

1

Question Description

Which image resembles the water image of the following?

c8h8u8r8c8h

A

h8c8r8u8h8c8

B

c8p8n8c8r8p

C

c8p8n8r8c8p

D

c8p8r8n8c8p

E

None of the above

Correct Answer

C

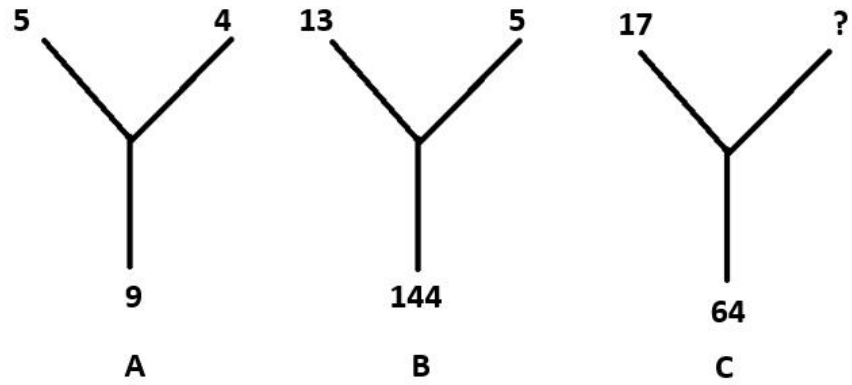
Marks

1

Question Description	If the third day of month is Monday, which of the following will be the fifth Day from 21 st of the month?
A	Monday
B	Tuesday
C	Wednesday
D	Thursday
E	None of the above
Correct Answer	C
Marks	1

Question Description

Find the missing value from the figure given below



A

15

B

80

C

85

D

285

E

None of the above

Correct Answer

A

Marks

1

Question Description	In a class of 60, where girls are twice that of boys, Kamal ranked seventeenth from the top. If there are 9 girls ahead of Kamal, how many boys are after him in the rank?
A	7
B	12
C	23
D	32
E	None of the above
Correct Answer	B
Marks	1

Question Description	If the sum of three consecutive even numbers is 150, then the numbers are
A	40 42 44
B	38 40 42
C	44 46 48
D	48 50 52
E	None of the above
Correct Answer	D
Marks	1

Question Description	In a queue, Rita is 10 th from the front while Monika is 25 th from the behind and , leena is just in the middle of two. If there are 50 persons in the queue. What position does leena occupy from the front?
A	14 th
B	16 th
C	18 th
D	20 th
E	None of the above
Correct Answer	C
Marks	1