Computer Based Examination System

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Title *	Question Paper Answer Key
OES Exam *	GPSC05202409 / Assistant Professor in Mechanical Engineering / Completed / 2024-09-28

1	Question Description	Availability of a system at any given state is
	Α	a property of the system
	В	the maximum work obtainable as the system goes to dead state
	С	the total energy of the system
	D	the maximum useful work obtainable as the system goes to dead state
	E	None of the above
	Correct Answer	D
	Marks	1

2	Question Description	In the boundary layer, the flow is
	Α	viscous and rotational
	В	inviscid and irrotational
	С	inviscid and rotational
	D	viscous and irrotational
	Е	None of the above
	Correct Answer	A
	Marks	1
3	Question Description	A mechanism has 8 links and 10 rotary joints. Find degree of freedom of the mechanism using Grubler's Criterion?
	Α	2
	В	2 1
	В	1
	В	1 3
	B C D	1 3 4
	B C D	1 3 4 None of the above

4	Question Description	
		For an engine operating on air standard Otto cycle, the clearance volume is 10% of the swept volume. The specific heat ratio of air is 1.4. The air standard cycle efficiency is
	Α	38.3%
	В	39.8%
	С	60.2%
	D	61.7%
	Е	None of the above
	Correct Answer	D
	Marks	1

5		A mixture of chemical compounds or elements that have a single chemical composition and solidifies at the lowest temperature than any other composition made up of the same ingredients.
	Α	Phase balanced system
	В	Eutectic system
	С	Binary thermally balanced system
	D	Intrinsic system
	Е	None of the above
	Correct Answer	В
	Marks	1

6	Question Description	 In an air-standard Otto cycle, how does the specific heat ratio (γ) of the working fluid affect the thermal efficiency of the cycle? A. The efficiency is independent of γ. B. An increase in γ increases the efficiency. C. An increase in γ decreases the efficiency. D. The efficiency initially increases with γ but then decreases after a certain point.
	A	A
	В	В
	С	C
	D	D
	Е	None of the above
	Correct Answer	В
	Marks	1

7	Question Description	When is Bernoulli's equation applicable between any two points in a flow field?
	A	The flow is steady, incompressible and rotational
	В	The flow is steady, compressible and irrotational
	С	The flow is unsteady, incompressible and irrotational
	D	The flow is steady, incompressible and irrotational
	Е	None of the above
	Correct Answer	D
	Marks	1
8	Question Description	Within the Heat Affected Zone (HAZ) in a fusion welding process, the work material undergoes
	Α	Both melting and microstructural change after solidification
	В	Both melting and microstructural change after solidification
	С	Microstructural changes but does not melt
	D	Microstructural changes but does not melt
	Е	None of the above
	Correct Answer	C
	Marks	1

An incestignic works with a compression ratio of 10. If cut-off happens at 8% of the stock, then the cut-off ratio of this engine is. B	A 1.2 B 2.2 C 4.2 D 3.2 E None of the above Correct Answer B Marks 1 10 Question Description Water (density = 1000 kg/m³) at ambient temperature flows through a horizontal pipe of uniform cross-section at the rate of 1 kg/s. if the pressure drop across the pipe is 100 kPa, the minimum power required to pump the water across the pipe (in watts) is, A 100 B 111 C 155 D 200 E None of the above Correct Answer A
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C 155 D 200 E None of the above Correct Answer A	C 155 D 200 E None of the above Correct Answer A
D 200 E None of the above Correct Answer A	D 200 E None of the above Correct Answer A
E None of the above Correct Answer A	E None of the above Correct Answer A
Correct Answer A	Correct Answer A
Marks 1	Marks 1

11	Question Description	The quality of a substance along the saturated vapor curve is
	A	Not defined
	В	1
	С	0
	D	0.5
	Е	None of the above
	Correct Answer	В
	Marks	1
12	Question Description	A 230V motor has an armature circuit resistance of 0.8 ohms. If the full load armature current is 25 A, find the amount of Back EMF induced in the armature.
	A	210 V
	В	200 V
	С	240 V
	D	250 V
	Е	None of the above
	Correct Answer	A
	Marks	1

13	Question Description	Pre-planning stage in production planning and control includes which of the following activities?
	Α	Inventory control
	В	Quality control
	С	Demand forecasting
	D	Dispatching
	Е	None of the above
	Correct Answer	C
	Marks	1
14	Question Description	Fin efficiency (η fin) and fin effectiveness (ϵ fin) are related to each other by
	Α	$arepsilon_{ ilde{ heta}n}\!=\!rac{A_{ ilde{ heta}n}}{A_b}\eta_{ ilde{ heta}n}$
	В	$\eta_{{ ilde h}n}\!=\!rac{A_{{ ilde h}n}}{A_b}arepsilon_{{ ilde h}n}$
	С	$arepsilon_{ ilde{ heta}n}\!=\!rac{A_{_{b}}}{A_{ ilde{ heta}n}}\eta_{ ilde{ heta}n}$
	D	$\eta_{\mathit{fin}} = rac{A_{_{b}}}{\mathit{fin}} arepsilon_{\mathit{fin}}$
	Е	None of the above
	Correct Answer	A
	Marks	1

15	Question Description	A clutch has outer and inner diameters of 100 mm and 40 mm, respectively. Assuming uniform pressure of 2 MPa and coefficient of friction of liner material as 0.4, find the torque carrying capacity of the clutch.
	Α	148 Nm
	В	196 Nm
	С	372 Nm
	D	490 Nm
	Е	None of the above
	Correct Answer	В
	Marks	1
16	Question Description	On a psychrometric chart, what does a vertical downward line represent?

A Adiabatic saturation B Sensible cooling C Dehumidification D Humidification E None of the above Correct Answer C Marks 1	Question Description	On a psychrometric chart, what does a vertical downward line represent?
C Dehumidification D Humidification E None of the above Correct Answer C	Α	Adiabatic saturation
D Humidification E None of the above Correct Answer C	В	Sensible cooling
E None of the above Correct Answer C	С	Dehumidification
Correct Answer C	D	Humidification
	E	None of the above
Marks 1	Correct Answer	С
	Marks	1

17	Question Description	In machine design, while calculating the diameter of shaft according to maximum shear stress theory, which of the following diagrams will be mostly needed?
	Α	Bending moment diagram only
	В	Shear force and bending moment diagrams
	С	Bending moment and load diagrams
	D	Bending moment, shear force and load diagrams
	Е	None of the above
	Correct Answer	С
	Marks	1
18	Question Description	Shrinkage allowance is added to nattern dimensions to take care of

10	Question Description	Shrinkage allowance is added to pattern dimensions to take care of
	A	Liquid shrinkage
	В	Liquid shrinkage and solid shrinkage
	С	Solid shrinkage
	D	Wear and tear of pattern
	E	None of the above
	Correct Answer	C
	Marks	1

19	Question Description	The right sequence of operation in the product planning and control processes is
	Α	Routing – Scheduling – Follow up – Dispatching
	В	Scheduling – Follow up – Dispatching – Routing
	С	Routing – Scheduling – Dispatching – Follow up
	D	Dispatching – Routing – Scheduling – Follow up
	Е	None of the above
	Correct Answer	C
	Marks	1

20	Question Description	The principal strains at a point in a body under bi-axial state of stress are 1000×10^{-6} and -600×10^{-6} . What is the maximum shear strain at that point?
	Α	800×10^{-6}
	В	1600 X 10 ⁻⁶
	С	-800 X 10 ⁻⁶
	D	-1600 X 10 ⁻⁶
	E	None of the above
	Correct Answer	В
	Marks	1

21	Question Description	Thermal diffusivity of a substance is
	A	inversely proportional to thermal conductivity
	В	directly proportional to thermal conductivity
	С	directly proportional to the square of thermal conductivity
	D	inversely proportional to the square of thermal conductivity
	E	None of the above
	Correct Answer	В
	Marks	1
22	Question Description	Ductile Iven is

22	Question Description	Ductile Iron is
	Α	Iron with the colour white.
	В	Iron where all the carbon is in Iron Carbide form
	С	Iron which has carbon less than 0.4%
	D	Graphite present in spherical form
	Е	None of the above
	Correct Answer	D
	Marks	1

23	Question Description	For a spring controlled governor to be stable, the controlling force, F is related to the radius, r by which equation?
	Α	F = ar - b
	В	F = ar + b
	С	F = ar
	D	F = a/r - b
	Е	None of the above
	Correct Answer	A
	Marks	1
24	Question Description	Given a transfer function $G(s)H(s)=K/(s(s+2))$, determine the location of the poles.
24	Question Description	Given a transfer function $G(s)H(s)=K/(s(s+2))$, determine the location of the poles. s=0,2
24	·	
24	A	s = 0, 2
24	A B	s = 0, 2 $s = 0, -2$
24	A B C	s = 0, 2 $s = 0, -2$ $s = 0, 4$
24	A B C	s = 0, 2 $s = 0, -2$ $s = 0, 4$ $s = 0, -4$
24	A B C D	s = 0, 2 $s = 0, -2$ $s = 0, 4$ $s = 0, -4$ None of the above

25	Question Description	The power is transmitted by lead screw to the carriage through
	Α	Gear box
	В	Half nut
	С	Rack and pinion
	D	Worm and gear
	Е	None of the above
	Correct Answer	В
	Marks	1

Question Description	What is the heat lost per hour across a wall 4 m high, 10 m long and 115 mm thick, if the inside wall temperature is 30°C and outside ambient temperature is 10°C? Conductivity of brick wall is 1.15 W/mK, heat transfer coefficient for inside wall is 2.5 W/m2K and that for outside wall is 4 W/m2K.
Α	3635 Kj
В	3750 kJ
С	3840 kJ
D	3920 kJ
Е	None of the above
Correct Answer	C
Marks	1

27	Question Description	A solid circular shaft of 60 mm diameter transmits a torque of 1600 Nm. The value of maximum shear stress developed is
		?
	A	25 52 1 52
	Α	37.72 MPa
	В	37.27 MPa
	С	27.72 MPa
	D	47.62 MPa
	E	None of the above
	Correct Answer	A
	Marks	1
00		
28	Question Description	20 H7-g6 is a
	Α	Interference fit
	В	Transition fit
	С	Clearance fit
	D	Nonstandard fit
	E	None of the above
	Correct Answer	C
	Marks	1

Question Description	A beam 4 metre long, simply supported at its ends, carries a point load W at its centre. If the slope at the ends of the beam is not to exceed 1°, then the deflection at the centre of the beam equals to
Α	15.56 mm
В	32.36 mm
С	23.26 mm
D	42.26 mm
Е	None of the above
Correct Answer	C
Marks	1
	A B C D E Correct Answer

30	Question Description	The significant advantage of using ammonia as a refrigerant is its
	Α	characteristic odor
	В	high latent heat
	С	solubility
	D	inflammability
	E	None of the above
	Correct Answer	В
	Marks	1

31	Question Description	Maximum carbon contained in steels is up to
		-
	Α	0.2%
	В	6.67%
	С	2%
	D	0.8%
	Е	None of the above
	Correct Answer	C
	Marks	1
32	Question Description	If T is the temperature corresponding to optimum wavelength, then according to Wein's displacement law, the maximum monochromatic emissive power is proportional to
	Α	T
	В	T^2
	С	T^4
	D	T^{5}
	Е	None of the above
	Correct Answer	D
	Marks	1

33	Question Description	The two most important inventory-based questions answered by the typical inventory model are:
	Α	when to place an order and the cost of the order
	В	when to place an order and how much of an item to order
	С	how much of an item to order and the cos of the order
	D	how much of an item to order and with whom the order should be placed
	E	None of the above
	Correct Answer	В
	Marks	1

34	Question Description	A spring mass damper system consists of a mass $=12.5$ kg, stiffness $=1000$ N/m, and damping coefficient of 15 Ns/m. What is logarithmic decrement of the system?
	Α	0.422
	В	0.14
	С	1.44
	D	1
	Е	None of the above
	Correct Answer	A
	Marks	1

35 Question Descripti	A single degree of freedom system with a damping ratio of 0.05 is subjected to forced vibration at a frequency that is 1.5 times its natural frequency. If the system's natural frequency is 10 Hz, what is the frequency of the forced vibration?
Α	10 Hz
В	25 Hz
С	20 Hz
D	15 Hz
Е	None of the above
Correct Answer	D
Marks	1
36 Question Descripti	ion In Project planning the critical path of a network is the

30	Question Description	In Project planning, the critical path of a network is the
	Α	shortest-time path through the network
	В	path with the fewest activities
	С	path with the most activities
	D	longest-time path through the network
	E	None of the above
	Correct Answer	D
	Marks	1

37	Question Description	Which one of the following statements is correct?
		In a domestic refrigerator, periodic defrosting is required because frosting
	Α	Causes corrosion of materials
	В	Reduces heat extraction
	С	Overcools food stuff
	D	Partially blocks refrigerant flow
	Е	None of the above
	Correct Answer	В
	Marks	1

38	Question Description	Recrystallization temperature of an alloy is
	Α	the temperature above which complete rechrystallization of a cold worked metal occurs within a specified time
	В	the temperature below which complete rechrystallization of a cold worked metal occurs within a specified time
	С	the same as liquidus line in Iron-Carbon diagram.
	D	the same as Solidus line in Iron-Carbon diagram.
	E	None of the above
	Correct Answer	A
	Marks	1

39	Question Description	A governor is said to be isochronous when the equilibrium speed is
	Α	Variable for different radii of rotation of governor balls
	В	Constant for all radii of rotation of the ball within the working range
	С	Constant for particular radii of rotation of governor ball
	D	Constant for only one radius of rotation governor balls
	E	None of the above
	Correct Answer	В
	Marks	1
40	Question Description	Grade -1 slip gauges are used in
	Α	Workshop by operator
	В	Inspection grade
	С	Tool room applications
	D	Inspection/ calibration of high precision
	E	None of the above
	Correct Answer	С
	Marks	1

41	Question Description	The shaft-hole combination with specification 50H8e9 will have a
	Α	clearance fit
	В	interference fit
	С	transition fit
	D	shrink fit
	Е	None of the above
	Correct Answer	A
	Marks	1
42	Question Description	What is the main difference between a supercharger and a turbocharger?
42	Question Description	What is the main difference between a supercharger and a turbocharger? A supercharger is more fuel-efficient
42		
42	Α	A supercharger is more fuel-efficient
42	В	A supercharger is more fuel-efficient A turbocharger is powered by exhaust gases, while a supercharger is directly driven by the engine
42	A B C	A supercharger is more fuel-efficient A turbocharger is powered by exhaust gases, while a supercharger is directly driven by the engine A supercharger is quieter than a turbocharger
42	A B C	A supercharger is more fuel-efficient A turbocharger is powered by exhaust gases, while a supercharger is directly driven by the engine A supercharger is quieter than a turbocharger A turbocharger works at lower RPMs than a supercharger
42	A B C D	A supercharger is more fuel-efficient A turbocharger is powered by exhaust gases, while a supercharger is directly driven by the engine A supercharger is quieter than a turbocharger A turbocharger works at lower RPMs than a supercharger None of the above

43	Question Description	Identify lower pairs: select the most appropriate answer.
	A	Ball and socket
	В	Cam and follower
	С	Piston and cylinder
	D	Both (a) and (b)
	E	None of the above
	Correct Answer	C
	Marks	1
44	Question Description	In an actual I.C. engine, which factor leads to a reduction in thermal efficiency compared to the ideal cycle?
44	Question Description A	In an actual I.C. engine, which factor leads to a reduction in thermal efficiency compared to the ideal cycle? Higher compression ratio
44	·	
44	A	Higher compression ratio
44	A B	Higher compression ratio Ignition delay
44	A B C	Higher compression ratio Ignition delay Lower friction
44	A B C	Higher compression ratio Ignition delay Lower friction Higher operating temperature
44	A B C D	Higher compression ratio Ignition delay Lower friction Higher operating temperature None of the above
44	A B C D E Correct Answer	Higher compression ratio Ignition delay Lower friction Higher operating temperature None of the above B

Question Description	When there is a reduction in the amplitude for every cycle of vibration then the body is said to be in
Α	Forced vibration
В	un-damped vibration
С	free vibration
D	damped vibration
Е	None of the above
Correct Answer	D
Marks	1
Question Description	A streamline and an equipotential line in a flow field
Α	are parallel to each other
В	are perpendicular to each other
С	intersect at an acute angle
D	are identical
Е	None of the above
Correct Answer	В

47	Question Description	Balancing of a rigid rotor can be achieved by appropriately balancing masses in
	Α	a single plane
	В	two planes
	С	three planes
	D	four planes
	E	None of the above
	Correct Answer	В
	Marks	1
48	Question Description	If heat and mass transfer take place simultaneously, the ratio of heat transfer coefficient to the mass transfer coefficient is a function of the ratio of:
	A	Schmidt and Reynolds numbers
	В	Schmidt and Prandtl numbers
	С	Nusselt and Lewis numbers
	D	Reynolds and Lewis numbers
	E	None of the above
	Correct Answer	В
	Marks	1

Question Description	Which programming language is most commonly used for PLCs?
Α	C++
В	Assembly
С	Ladder Logic
D	Python
E	None of the above
Correct Answer	C
Marks	1

50		A journal bearing supports a shaft that rotates at 1800 rpm. The clearance to radius ratio is $1/120$. Viscosity of the lubricant is 30×10^{-3} Pa s and bearing pressure is 2.4 MPa. Determine Sommer field number.
	Α	5.4×10^{-3}
	В	4.5×10^{-3}
	С	5.1 X 10 ⁻⁴
	D	5.6 X 10 ⁻⁵
	E	None of the above
	Correct Answer	A
	Marks	1

51	Comprehension	Read the passage below and answer the questions
		Knowledge is a form of union of Self and not-Self; like all unions, it is impaired by dominion, and therefore by any attempt to force the universe into conformity with what we find in ourselves. There is a widespread philosophical tendency towards the view which tells us that Man is the measure of all things, that truth is man-made, that space and time and the world of universals are properties of the mind, and that, if there be anything not created by the mind, it is unknowable and of no account for us. This view, if our previous discussions were correct, is untrue; but in addition to being untrue, it has the effect of robbing philosophic contemplation of all that gives it value, since it fetters contemplation to Self. What it calls knowledge is not a union with the not-Self, but a set of prejudices, habits, and desires, making an impenetrable veil between us and the world beyond. The man who finds pleasure in such a theory of knowledge is like the man who never leaves the domestic circle for fear his word might not be law.
	Question Description	According the passage, the philosophical view which considers "Man" as the measure of all things and truth to be manmade, espouses in lieu of knowledge
	Α	union with Non-self
	В	prejudices, habits and desires
	С	union with Self
	D	impenetrable veil between self and the world beyond
	Е	None of the above
	Correct Answer	D
	Marks	1

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Question Description	As per the passage, what is impaired by any attempt to force the universe into conformity with what we find in ourselves?
Α	self
В	non-self
С	union
D	knowledge
E	None of the above
Correct Answer	D
Marks	1

53	Comprehension	Read the passage below and answer the questions Knowledge is a form of union of Self and not-Self; like all unions, it is impaired by dominion, and therefore by any attempt to force the universe into conformity with what we find in ourselves. There is a widespread philosophical tendency towards the view which tells us that Man is the measure of all things, that truth is man-made, that space and time and the world of universals are properties of the mind, and that, if there be anything not created by the mind, it is
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	Question Description	Identify from the options given below, a word or phrase, which means to damage or harm
	A	fetter
	В	rob
	С	impair
	D	force conformity

Е	None of the above
Correct Answer	C
Marks	1

54	Comprehension	Read the passage below and answer the questions
		Knowledge is a form of union of Self and not-Self; like all unions, it is impaired by dominion, and therefore by any attempt to force the universe into conformity with what we find in ourselves. There is a widespread philosophical tendency towards the view which tells us that Man is the measure of all things, that truth is man-made, that space and time and the world of universals are properties of the mind, and that, if there be anything not created by the mind, it is unknowable and of no account for us. This view, if our previous discussions were correct, is untrue; but in addition to being untrue, it has the effect of robbing philosophic contemplation of all that gives it value, since it fetters contemplation to Self. What it calls knowledge is not a union with the not-Self, but a set of prejudices, habits, and desires, making an impenetrable veil between us and the world beyond. The man who finds pleasure in such a theory of knowledge is like the man who never leaves the domestic circle for fear his word might not be law.
	Question Description	Indicate from the options provided the closest antonym of 'conform' as used in the passage:
	A	flout
	В	bypass
	С	flaunt
	D	deny
	Е	None of the above
	Correct Answer	A
	Marks	1

Comprehension	Read the passage below and answer the questions
	Knowledge is a form of union of Self and not-Self; like all unions, it is impaired by dominion, and therefore by any attempt to force the universe into conformity with what we find in ourselves. There is a widespread philosophical tendency towards the view which tells us that Man is the measure of all things, that truth is man-made, that space and time and the world of universals are properties of the mind, and that, if there be anything not created by the mind, it is unknowable and of no account for us. This view, if our previous discussions were correct, is untrue; but in addition to being untrue, it has the effect of robbing philosophic contemplation of all that gives it value, since it fetters contemplation to Self. What it calls knowledge is not a union with the not-Self, but a set of prejudices, habits, and desires, making an impenetrable veil between us and the world beyond. The man who finds pleasure in such a theory of knowledge is like the man who never leaves the domestic circle for fear his word might not be law.
Question Description	Read the following statements and say whether they are true or false, on the basis of the passage: (i) Man-centric view of the universe and the notion that truth is man-made is utterly fallacious (ii) Far from being true, it denies any scope to human mind for contemplation of matters of intrinsic worth to itself
Α	statement (i) is true but statements (ii) is false
В	both the statements are true
С	both the statements are false
D	statement (i) is false but statements (ii) is true
E	None of the above
Correct Answer	В
Marks	1

56	Question Description	Who is appointed as head coach of Goa Cricket Association Senior Men's Team Recently
	A	Dinesh Mongia
	В	Robin Singh
	С	Venkatapathy Raju
	D	Ashish Nehra
	Е	None of the above
	Correct Answer	A
	Marks	1

57	Question Description	was sworn in as new Chief State Information Commissioner of Goa.
	A	Arvind Kumar Nair
	В	Venkat c.k.
	С	Sumit Kumar Patel
	D	Srirang Barve
	E	None of the above
	Correct Answer	A
	Marks	1
58	Question Description	Which state is hosting the first Formula 4 car race in South Asia?
	Α	Maharashtra
	В	Gujarat
	С	Tamil Nadu
	D	West Bengal
	Е	None of the above
	Correct Answer	С
	Marks	1

59	Question Description	Which country is participating with India in the joint military exercise 'Yudh Abhyas' in 2024?
	A	Russia
	В	Australia
	С	United States
	D	United Kingdom
	Е	None of the above
	Correct Answer	С
	Marks	1
60	Question Description	Which state is planning to build India's first solar-powered expressway by 2026?
	A	Gujarat
	В	Maharashtra
	С	Uttar Pradesh
	D	Madhya Pradesh
	Е	None of the above
	Correct Answer	С
	Marks	1

61	Question Description	Which state became the first to offer AYUSH services in all urban primary health centres?
	A	Chhattisgarh
	В	Madhya Pradesh
	С	Odisha
	D	Gujarat
	Е	None of the above
	Correct Answer	В
	Marks	1
62	Question Description	Who completed the first private spacewalk at a record-setting height?
	Α	Michael Collins
	В	Pavel Vinogradov
	С	Jared Isaacman
	D	Fyodor Nikolayevich Yurchikhin
	Е	None of the above
	Correct Answer	С
	Marks	1

63	Question Description	Who is the winner of late Smt. Sunandabai Dayanand Bandodkar Memorial Blitz FIDE Rating Chess Tournament
	A	Madan Lad
	В	Nitish Belurkar
	С	Abhishek Kelkar
	D	Pankaj Bhat
	Е	None of the above
	Correct Answer	В
	Marks	1
64	Question Description	In which Indian state was the world's first Asian King Vulture Conservation and Breeding Centre inaugurated?
64	Question Description	In which Indian state was the world's first Asian King Vulture Conservation and Breeding Centre inaugurated? Maharashtra
64		
64	Α	Maharashtra
64	В	Maharashtra Gujarat
64	A B C	Maharashtra Gujarat Uttar Pradesh
64	A B C	Maharashtra Gujarat Uttar Pradesh Rajasthan
64	A B C D	Maharashtra Gujarat Uttar Pradesh Rajasthan None of the above

65	Question Description	What is the new name of Port Blair announced by the Home Minister of India?
	A	Sri Chandra Puram
	В	Sri Vijay Nagar
	С	Sri Vijaya Puram
	D	Sri Chola Boomi
	E	None of the above
	Correct Answer	C
	Marks	1

Question Description	Directions: Read the following information carefully and answer the questions given beside.
	Certain number of persons sit around a square table such that nobody sits at the corner and not more than 4 persons sit around each of the sides. Information about few persons is given and all the persons face towards the centre. Only 4 persons sit between P and T, who is on the immediate left of Q. S is sixth to the right of U. R is at a gap of two persons from U, who is adjacent to T. Only one person sits between R and V, who is third to the right of S. What is the position of R with respect to Q?
Α	Immediate right
В	Fifth to the right
С	Fifth to the left
D	Immediate left
Е	None of the above
Correct Answer	C
Marks	1

67 Question Description	A wheel that has 6 cogs is meshed with a larger wheel of 14 cogs. When the smaller wheel has made 21 revolutions, then the number of revolutions mad by the larger wheel is:
Α	4
В	9
С	12
D	49
E	None of the above
Correct Answer	В
Marks	1

68	Question Description	If first and third digits of each number are interchanged and then numbers are arranged in ascending order then which of the following will be the second number from right end?
	A	2764
	В	9862
	С	7983
	D	5493
	E	None of the above
	Correct Answer	C
	Marks	1

69	Question Description	select the related word/letters/number from the given alternatives.
		225:12:435:?
	Α	12
	В	20
	С	25
	D	19
	Е	None of the above
	Correct Answer	D
	Marks	1

70	Question Description	How many such pairs of letters are there in the 'CONDITIONAL' each of which has as many letters between them in the
		word as in the English Alphabet?
	A	One
	В	Two
	С	Three
	D	four
	E	None of the above
	Correct Answer	E
	Marks	1
71	Question Description	January 1, 2007 was Monday. What day of the week lies on Jan. 1, 2008?
	A	Monday
	В	Tuesday
	С	Wednesday
	D	Sunday
	E	None of the above
	Correct Answer	В
	Marks	1

72 Q ı	uestion Description	Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.
		PASTORAL : RURAL
A		metropolitan : urban
В		harvest : autumn
С		agrarian : benevolent
D		sleepy : nocturnal
E		None of the above
Co	orrect Answer	A
Ma	arks	1

Question Description	Find the missing Numbers
	36 6 9 15
	88 11 9 ?
	120 ? 6 18
A	54,41
В	17,82
С	17,10
D	96,13
Е	None of the above
Correct Answer	С
Marks	1

74 Question Description	Four of the following five are related to each other in terms of English alphabet series and thus form a group. Which of the following does not fit to that group?
Α	FUX
В	PKN
С	HSV
D	MNP
E	None of the above
Correct Answer	D
Marks	1

Question Description	Each question given below consists of a statement, followed by three or four arguments numbered I, II, III and IV. You have to decide which of the arguments is/are 'strong' arguments) and which is/are 'weak' arguments) and accordingly choose your answer from the alternatives given below each question.
	Statement: Should trade unions be banned completely? Arguments:
	I. Yes. Workers can concentrate on production.
	II. No. This is the only way through which employees can put their demands before the management.
	III. Yes. Employees get their illegal demands fulfilled through these unions.
	IV. No. Trade unions are not banned in other economically advanced countries.
Α	Only I is strong
В	Only II is strong
С	Only I and II are strong
D	Only I, II and III are strong
Е	None of the above
Correct Answer	В
Marks	1