

Computer Based Examination System

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Title *	Question Paper Answer Key
OES Exam *	GPSC06202205 / Assistant Professors in Government College in Chemistry (Inorganic)/ Completed / 2022-11-19

1	Question Description	In the structure of $[B_{12}H_{12}]^{2-}$, all the H atoms are involved in forming
	A	only 3c-2e B-H-B bridging bonds
	B	both B-H-B bridging bonds and terminal B-H bonds
	C	only 2c-1e terminal B-H bonds
	D	only 2c-2e terminal B-H bonds
	E	None of the above
	Correct Answer	D
	Marks	1

2	Question Description	The spin-only magnetic moment (μ_{so} in BM) for the tetrahedral compound Cs_2CoCl_4 with 4A_2 ground term is
	A	3.87
	B	4.90
	C	1.73
	D	5.92
	E	None of the above
	Correct Answer	A
	Marks	1

3	Question Description	In the complex ion $[\text{Co}(\text{diars})_2(\text{NO})]^{2+}$ (where diars is a neutral bidentate diarsine ligand <i>o</i> -phenylene bis-dimethyl arsine), the 18-electron rule is fulfilled because
	A	NO is single electron donor ligand
	B	NO is a two-electron donor ligand
	C	NO is a three-electron donor ligand
	D	NO is a four-electron donor ligand
	E	None of the above
	Correct Answer	C
	Marks	1

4	Question Description	The point group for PF ₅ molecule is
	A	C_{4v}
	B	D_{4h}
	C	C_{2v}
	D	D_{3h}
	E	None of the above
	Correct Answer	D
	Marks	1

5	Question Description	$\tilde{\text{C}}\text{O}$ stretching mode symmetries for Cr(CO) ₆ are A_{1g} , E_g and T_{1u} , the IR (Infrared) active modes are / mode is
	A	A_{1g} and E_g
	B	E_g and T_{1u}
	C	only T_{1u}
	D	A_{1g} , E_g and T_{1u}
	E	None of the above
	Correct Answer	C
	Marks	1

6	Question Description	All the spectroscopic lines observed in the spectrum of atomic hydrogen are described by the expression
	A	$\tilde{\nu} = [(1/n_1)-(1/n_2)]$
	B	$\tilde{\nu} = R_H [(1/n_1)-(1/n_2)]$
	C	$\tilde{\nu} = R_H [(1/n_1^2)-(1/n_2^2)]$
	D	$\tilde{\nu} = R_H [(1/n_1)-(1/n_2)]^2$
	E	None of the above
	Correct Answer	C
	Marks	1

7	Question Description	For a d^2 system with the strong field configuration, the $t_{2g}^1 e_g^1$ gives the following strong field terms
	A	$^3T_1, ^3T_2, ^1T_1$ and 1T_2
	B	$^3T_1, ^3T_2$ and 1T_2
	C	$^3T_1, ^1T_1$ and 1T_2
	D	$^3T_2, ^1T_1$ and 1T_2
	E	None of the above
	Correct Answer	A
	Marks	1

8	Question Description	For the reaction $\text{HNO}_3 + 2\text{H}_2\text{SO}_4 \rightarrow$ the products are
	A	$2\text{H}_2\text{SO}_3 + \text{O}_2 + \text{NO}_2 + \text{H}_2\text{O}$
	B	$2\text{H}_2\text{SO}_3 + \text{O}_2 + \text{NO}_2 + \text{H}_3\text{O}^+$
	C	$2\text{HSO}_4 + \text{NO}_2^+ + \text{H}_3\text{O}^+$
	D	$2\text{SO}_3 + \text{H}_2 + \text{NO}_3 + \text{H}_3\text{O}^+$
	E	None of the above
	Correct Answer	C
	Marks	1

9	Question Description	In the complex ion $[\text{Mo}_2\text{Cl}_8]^{4-}$ the σ -bond is formed between the two Mo ions from the overlap of the following d-orbitals of Mo
	A	$4d_z^2-4d_z^2$
	B	$4d_{xz}-4d_{xz}$
	C	$4d_{yz}-4d_{yz}$
	D	$4d_{xy}-4d_{xy}$
	E	None of the above
	Correct Answer	D
	Marks	1

10	Question Description	When AgF is dissolved in BrF ₃ , the major species formed in the conducting solution are
	A	AgF ₂ + BrF ₂ ⁺
	B	Ag ⁺ + BrF ₄
	C	AgF ₂ ⁺ + BrF ₂
	D	AgF ₄ ²⁺ + 2BrF ₂ ⁺
	E	None of the above
	Correct Answer	B
	Marks	1

11	Question Description	In tetraborane there is
	A	no B-B bond
	B	a two centre one-electron B-B bond
	C	a two centre three-electron B-B bond
	D	a two centre two-electron B-B bond
	E	None of the above
	Correct Answer	D
	Marks	1

12	Question Description	In dicarba-closo-dodecaborane there are
	A	no structural isomers
	B	only one structural isomer
	C	only two structural isomers
	D	three structural isomers
	E	None of the above
	Correct Answer	D
	Marks	1

13	Question Description	Ground strong field term in O_h symmetry for the ground strong field t_{2g}^4 configuration for a d^4 low-spin case is
	A	$^3T_{1g}$
	B	2E_g
	C	$^3A_{2g}$
	D	$^1A_{1g}$
	E	None of the above
	Correct Answer	A
	Marks	1

14	Question Description	Ground strong field term in O_h symmetry for the ground strong field $t_{2g}^6 e_g^0$ configuration for a d^6 low-spin case is
	A	${}^2T_{2g}$
	B	2E_g
	C	${}^3A_{2g}$
	D	${}^1A_{1g}$
	E	None of the above
	Correct Answer	D
	Marks	1

15	Question Description	In the complex ion $[\text{Re}_2\text{Cl}_8]^{2-}$ the σ -bond is formed between the two Re ions from the overlap of the following d-orbitals of Re
	A	$5d_z^2-5d_z^2$
	B	$5d_{xz}-5d_{xz}$
	C	$5d_{yz}-5d_{yz}$
	D	$5d_{xy}-5d_{xy}$
	E	None of the above
	Correct Answer	A
	Marks	1

16

Question Description	The strongest known super acid is a solution of
A	PF ₅ in hydrogen fluoride
B	AsF ₅ in hydrogen fluoride
C	SbF ₅ in hydrogen fluoride
D	SF ₆ in hydrogen fluoride
E	None of the above
Correct Answer	C
Marks	1

17

Question Description	In the complex ion $[\text{Co}(\text{diars})_2(\text{NCS})(\text{NO})]^+$ (where diars is a neutral bidentate diarsine ligand <i>o</i> -phenylene bis-dimethyl arsine), the 18-electron rule is fulfilled because
A	NO is one- electron donor ligand
B	NO is a two-electron donor ligand
C	NO is a three-electron donor ligand
D	NO is a four-electron donor ligand
E	None of the above
Correct Answer	A
Marks	1

18	Question Description	The spin-only magnetic moment (μ_{so} in BM) for the tetrahedral compound $(\text{Et}_4\text{N})_2\text{MnCl}_4$ with ${}^6\text{A}_1$ ground term is
	A	3.87
	B	4.90
	C	1.73
	D	5.92
	E	None of the above
	Correct Answer	D
	Marks	1

19	Question Description	In the spectrum of atomic hydrogen, the majority of the Balmer series of lines lie in the
	A	visible region (800 to 400 nm)
	B	UV-region (400 to 200 nm)
	C	far UV region (200 to 100 nm)
	D	IR region (>1000 nm)
	E	None of the above
	Correct Answer	A
	Marks	1

20	Question Description	The molecular formula of tetraborane is
	A	B_4H_8
	B	B_4H_{10}
	C	B_4H_6
	D	B_4H_{14}
	E	None of the above
	Correct Answer	B
	Marks	1

21	Question Description	When SbF_5 is dissolved in BrF_3 , the major species formed in the conducting solution are
	A	$SbF_4^+ + BrF_4$
	B	$SbF_3^{2+} + BrF_5^{2-}$
	C	$SbF_6^+ + BrF_4$
	D	$SbF_6 + BrF_2^+$
	E	None of the above
	Correct Answer	D
	Marks	1

22	Question Description	The point group for $[\text{Co}(\text{NH}_3)_5\text{Cl}]^{2+}$ is
	A	C_{4v}
	B	D_{4h}
	C	C_{2v}
	D	D_{3d}
	E	None of the above
	Correct Answer	A
	Marks	1

23	Question Description	When OPCl_3 reacts with NH_3 , the complete reaction can be represented as
	A	$\text{OPCl}_3 + 3 \text{NH}_3 \rightarrow \text{P}(\text{NH}_3)_3 + \text{Cl}_3\text{O}$
	B	$\text{OPCl}_3 + 6 \text{NH}_3 \rightarrow \text{OP}(\text{NH}_2)_3 + 3\text{NH}_4^+ + 3\text{Cl}^-$
	C	$\text{OPCl}_3 + 6 \text{NH}_3 \rightarrow \text{OP}(\text{NH}_3)_2 + 3\text{NH}_4^+ + 3\text{Cl}^-$
	D	$\text{OPCl}_3 + 3 \text{NH}_3 \rightarrow \text{OP}(\text{NH}_2)_2 + \text{NH}_4^+ + 3\text{Cl}^-$
	E	None of the above
	Correct Answer	B
	Marks	1

24	Question Description	The spin-only magnetic moment (μ_{so} in BM) for the tetrahedral compound VCl_4 with 2E ground term is
	A	3.87
	B	4.90
	C	1.73
	D	5.92
	E	None of the above
	Correct Answer	C
	Marks	1

25	Question Description	In the 3c-2e B-H-B bridging bond in nido-pentaborane(9), the electrons occupy
	A	nonbonding orbital
	B	antibonding orbital
	C	bonding orbital
	D	both bonding and nonbonding orbitals
	E	None of the above
	Correct Answer	C
	Marks	1

26	Question Description	The metal d-orbitals of CoCl_4^{2-} with a T_d symmetry split into
	A	e_g and t_{2g}
	B	a_{1g} and e_g
	C	a_{1g} , e_g and b_{2g}
	D	e and t_2
	E	None of the above
	Correct Answer	D
	Marks	1

27	Question Description	$\text{V}(\text{CO})_6$ easily undergoes one electron reduction but this reduced species does not undergo dimerization because
	A	size of V is too small to accommodate seven coordination
	B	size of V is too large to accommodate seven coordination
	C	size of V is not a factor for not undergoing dimerization
	D	it is an electronic factor for not undergoing dimerization
	E	None of the above
	Correct Answer	A
	Marks	1

28	Question Description	$\text{SbF}_5 + 2\text{HSO}_3\text{F} \rightarrow$ superacid. This superacid on reaction with $\text{C}(\text{CH}_3)_4$ produces
	A	$\text{H}_2\text{C}=\text{C}(\text{CH}_3)_2 + \text{CH}_4$
	B	$\text{H}_2\text{C}=\text{C}=\text{CH}_2 + 2 \text{CH}_4$
	C	$\text{H}_2\text{C}=\text{C}=\text{CH}_2 + \text{C}_2\text{H}_6 + \text{H}_2$
	D	$(\text{H}_3\text{C})_3\text{C}^+ + \text{CH}_4$
	E	None of the above
	Correct Answer	D
	Marks	1

29	Question Description	The spin-only magnetic moment (μ_{so} in BM) for the octahedral compound $\text{KCr}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ with ${}^4\text{A}_{2g}$ ground term is
	A	3.87
	B	4.90
	C	2.83
	D	1.73
	E	None of the above
	Correct Answer	A
	Marks	1

30	Question Description	The first ionization energy of O ₂ molecule is
	A	higher than that of O atom
	B	lower than that of O atom
	C	equal to that of O atom
	D	much higher than that of O atom
	E	None of the above
	Correct Answer	B
	Marks	1

31	Question Description	The spin-only magnetic moment (μ_{so} in BM) for the octahedral compound K ₂ Cu(SO ₄) ₂ ·6H ₂ O with ² E _g ground term is
	A	3.87
	B	4.90
	C	2.83
	D	1.73
	E	None of the above
	Correct Answer	D
	Marks	1

32	Question Description	The first ionization energy of NO molecule is
	A	higher than that of N ₂ molecule
	B	lower than that of N ₂ molecule
	C	equal to that of O atom
	D	equal to that of N atom
	E	None of the above
	Correct Answer	B
	Marks	1

33	Question Description	Ground strong field term in O _h symmetry for the ground strong field t _{2g} ⁶ e _g ² configuration for a d ⁸ low-spin case is
	A	² T _{2g}
	B	² E _g
	C	³ A _{2g}
	D	¹ A _{1g}
	E	None of the above
	Correct Answer	C
	Marks	1

34	Question Description	The point group for $\text{Mo}(\text{CO})_6$ is
	A	T_d
	B	C_{4v}
	C	D_{3h}
	D	O_h
	E	None of the above
	Correct Answer	D
	Marks	1

35	Question Description	Based on the correct molecular orbital energy level diagram for the molecule B_2 , it has
	A	no unpaired electron
	B	one unpaired electron
	C	two unpaired electrons
	D	three unpaired electrons
	E	None of the above
	Correct Answer	C
	Marks	1

36	Question Description	The point group for Ni(CO) ₄ is
	A	T _d
	B	C _{4v}
	C	D _{3h}
	D	O _h
	E	None of the above
	Correct Answer	A
	Marks	1

37	Question Description	In the spectrum of atomic hydrogen, the Paschen series of lines lie in the
	A	visible region (800 to 400 nm)
	B	UV-region (400 to 200 nm)
	C	far UV region (lower than 200 nm)
	D	infrared (IR) region (>1000 nm)
	E	None of the above
	Correct Answer	D
	Marks	1

38	Question Description	The molecular formula of diborane is
	A	B_2H_8
	B	B_2H_{10}
	C	B_2H_6
	D	B_2H_4
	E	None of the above
	Correct Answer	C
	Marks	1

39	Question Description	The complex ion $[Mo_2Cl_8]^{4-}$ possesses the following metal-metal bond
	A	single bond
	B	double bond
	C	triple bond
	D	quadruple bond
	E	None of the above
	Correct Answer	D
	Marks	1

40	Question Description	The spin-only magnetic moment (μ_{so} in BM) for the octahedral compound $(\text{NH}_4)_2\text{Ni}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ with ${}^3\text{A}_{2g}$ ground term is
	A	3.87
	B	4.90
	C	2.83
	D	5.92
	E	None of the above
	Correct Answer	C
	Marks	1

41	Question Description	In the structure of $\text{Fe}(\text{CO})_4(\text{CN})$, CN^- occupies one of the axial positions because
	A	CO is a weaker π -accepting ligand than CN^-
	B	CN^- is a stronger π -accepting ligand than CO
	C	both are equally strong π -accepting ligands
	D	CO is a stronger π -accepting ligand than CN^-
	E	None of the above
	Correct Answer	D
	Marks	1

42	Question Description	The complex ion $[\text{Re}_2\text{Cl}_8]^{2-}$ is a
	A	paramagnetic species
	B	ferromagnetically coupled species
	C	antiferromagnetically coupled species
	D	diamagnetic species
	E	None of the above
	Correct Answer	D
	Marks	1

43	Question Description	In the $[\text{PdCl}_4]^{2-}$ catalyzed reaction of ethylene with molecular oxygen, $\text{H}_2\text{C}=\text{CH}_2$
	A	does not coordinate to $[\text{PdCl}_4]^{2-}$
	B	coordinates to $[\text{PdCl}_4]^{2-}$ by replacing one Cl^- ligand
	C	coordinates to $[\text{PdCl}_4]^{2-}$ but does not replace any Cl^- ligand
	D	coordinates to $[\text{PdCl}_4]^{2-}$ by replacing two Cl^- ligands
	E	None of the above
	Correct Answer	B
	Marks	1

44	Question Description	The 3F term of d^2 gives the following components in O_h with weak field approximation
	A	${}^3T_{1g}$ and ${}^3T_{2g}$
	B	${}^3T_{1g}$ and ${}^3A_{2g}$
	C	${}^3T_{2g}$ and ${}^3A_{2g}$
	D	${}^3T_{1g}$, ${}^3T_{2g}$ and ${}^3A_{2g}$
	E	None of the above
	Correct Answer	D
	Marks	1

45	Question Description	The point group for the water molecule is
	A	C_{4v}
	B	D_{2h}
	C	C_{2v}
	D	D_2
	E	None of the above
	Correct Answer	C
	Marks	1

46	Question Description	The correct representation of the following nuclear reaction is
	A	$^{209}\text{Bi} (n, \alpha) ^{210}\text{Bi} \alpha ^{210}\text{Po} + \alpha$
	B	$^{209}\text{Bi} (n, \alpha) ^{210}\text{Bi} \alpha ^{210}\text{Po}$
	C	$^{209}\text{Bi} (\alpha, \alpha) ^{210}\text{Bi} \alpha ^{210}\text{Po} + \alpha$
	D	$^{209}\text{Bi} (n, \alpha) ^{210}\text{Po} \alpha ^{210}\text{Bi} + \alpha$
	E	None of the above
	Correct Answer	A
	Marks	1

47	Question Description	The normal modes of vibrations for the water molecule are
	A	only symmetrical stretching mode, A_1
	B	only bending mode, A_1
	C	only antisymmetrical stretching mode, B_2
	D	all three, $2A_1$ and B_2
	E	None of the above
	Correct Answer	D
	Marks	1

48	Question Description	When $(\text{BrF}_2)\text{SbF}_6$ is reacted with AgBrF_4 in BrF_3 , the products are
	A	$\text{SbF}_5 + \text{AgF} + \text{BrF}_2^+ + \text{BrF}_4$
	B	$\text{SbF}_6^+ + \text{AgF}_2 + \text{BrF}_2^+ + \text{BrF}_4$
	C	$\text{AgSbF}_6 + 2\text{BrF}_3$
	D	$\text{SbF}_4^+ + \text{AgF}_2 + \text{BrF}_2^+ + \text{BrF}_4$
	E	None of the above
	Correct Answer	C
	Marks	1

49	Question Description	The molecule $\text{Fe}_3(\text{CO})_{12}$ contains
	A	no Fe-Fe bond
	B	no terminal CO ligand
	C	no bridging CO ligand
	D	terminal CO ligands but no Fe-Fe bond
	E	None of the above
	Correct Answer	C
	Marks	1

50

Question Description	For a d^2 system with the strong field configuration, the e_g^2 gives the following strong field terms
A	3A_2 and 1E
B	3A_2 , 1E and 1A_1
C	1E and 1A_1
D	3A_2 and 1A_1
E	None of the above
Correct Answer	B
Marks	1

51

Comprehension

The direction of the navigation was therefore taken from the Captain and given to the Master; but this partition of authority produced innumerable inconveniences. The line of demarcation was not, and perhaps could not be, drawn with precision. There was therefore constant wrangling. The captain, confident in proportion to his ignorance, treated the Master with lordly contempt. The Master, well aware of the danger of disobliging the powerful, too often, after a struggle, yielded against his better judgement; and it was well if the loss of ship and crew was not the consequence. In general, the least mischievous of the aristocratical captains were those who completely abandoned to others the direction of the vessels, and thought only of making money and spending it.

Question Description

Read the following statements and arrange them in logical sequence

- (i) The bifurcation in command thus caused much inconvenience
- (ii) The control of navigation was handed over to the Master.
- (iii) Line of demarcation of authority, however, could not be precisely drawn.
- (iv) The captain treated the Master with highhanded contempt.

A

(ii)-(i)-(iv)-(iii)

B

(ii)-(iv)-(iii)-(i)

C

(ii)-(i)-(iii)-(iv)

D

(iv)-(iii)-(ii)-(i)

E

None of the above

Correct Answer

B

Marks

1

Comprehension

The direction of the navigation was therefore taken from the Captain and given to the Master; but this partition of authority produced innumerable inconveniences. The line of demarcation was not, and perhaps could not be, drawn with precision. There was therefore constant wrangling. The captain, confident in proportion to his ignorance, treated the Master with lordly contempt. The Master, well aware of the danger of disobliging the powerful, too often, after a struggle, yielded against his better judgement; and it was well if the loss of ship and crew was not the consequence. In general, the least mischievous of the aristocratical captains were those who completely abandoned to others the direction of the vessels, and thought only of making money and spending it.

Question Description

Read the following statements and state whether they are true or false

- (i) The chief was as contemptuous of the Master to a degree comparable with his ignorance of his own job as a captain
- (ii) Aware of the risk of not obliging the powerful, the Master yielded too often but not without a struggle.

A

(i) is true; (ii) is false

B

(i) and (ii) are both false

C

(i) and (ii) are both true

D

(i) is false; (ii) is true

E

None of the above

Correct Answer

C

Marks

1

53

Comprehension

The direction of the navigation was therefore taken from the Captain and given to the Master; but this partition of authority produced innumerable inconveniences. The line of demarcation was not, and perhaps could not be, drawn with precision. There was therefore constant wrangling. The captain, confident in proportion to his ignorance, treated the Master with lordly contempt. The Master, well aware of the danger of disobliging the powerful, too often, after a struggle, yielded against his better judgement; and it was well if the loss of ship and crew was not the consequence. In general, the least mischievous of the aristocratical captains were those who completely abandoned to others the direction of the vessels, and thought only of making money and spending it.

Question Description

As per the passage, the handing over the direction of navigation to the Master meant

A

innumerable inconveniences

B

partition of authority

C

vague demarcation of authority

D

line of demarcation

E

None of the above

Correct Answer

B

Marks

1

54

Comprehension

The direction of the navigation was therefore taken from the Captain and given to the Master; but this partition of authority produced innumerable inconveniences. The line of demarcation was not, and perhaps could not be, drawn with precision. There was therefore constant wrangling. The captain, confident in proportion to his ignorance, treated the Master with lordly contempt. The Master, well aware of the danger of disobliging the powerful, too often, after a struggle, yielded against his better judgement; and it was well if the loss of ship and crew was not the consequence. In general, the least mischievous of the aristocratical captains were those who completely abandoned to others the direction of the vessels, and thought only of making money and spending it.

Question Description

In the passage the phrase “line of demarcation”, vis-à-vis the Captain and the Master, implies

A

partition of authority

B

boundary between the two

C

conceptual separation of power

D

delimiting the authority of each

E

None of the above

Correct Answer

D

Marks

1

55

Comprehension

The direction of the navigation was therefore taken from the Captain and given to the Master; but this partition of authority produced innumerable inconveniences. The line of demarcation was not, and perhaps could not be, drawn with precision. There was therefore constant wrangling. The captain, confident in proportion to his ignorance, treated the Master with lordly contempt. The Master, well aware of the danger of disobliging the powerful, too often, after a struggle, yielded against his better judgement; and it was well if the loss of ship and crew was not the consequence. In general, the least mischievous of the aristocratical captains were those who completely abandoned to others the direction of the vessels, and thought only of making money and spending it.

Question Description

Identify the obvious figures of speech in the following sentence: “The captain, confident in proportion to his ignorance, treated the Master with lordly contempt.”

A

irony and sarcasm

B

satire and hyperbole

C

sarcasm and metaphor

D

paradox and personification

E

None of the above

Correct Answer

A

Marks

1

56	Question Description	Which of the following has been declared a National Monument very recently ?
	A	Mangarh Dham
	B	Lascar War Memorial
	C	Balidan Stambh
	D	Jharkhand War Memorial
	E	None of the above
	Correct Answer	A
	Marks	1

57	Question Description	Which actor will be the first to film in space?
	A	Tom Cruise
	B	Val Kilmer
	C	Dwayne Johnson
	D	Johnny Depp
	E	None of the above
	Correct Answer	A
	Marks	1

58	Question Description	Scientists have found a new ecosystem 'The Trapping Zone' in which country?
	A	Thailand
	B	Japan
	C	Australia
	D	Maldives
	E	None of the above
	Correct Answer	D
	Marks	1

59	Question Description	Who has become the first Indian Wrestler to win Gold Medal at U-23 World Wrestling Championships?
	A	Aman Sehrawat
	B	Sajan Bhanwala
	C	Vikas
	D	Nitesh
	E	None of the above
	Correct Answer	A
	Marks	1

60	Question Description	President Draupadi Murmu has launched 'PARAM KAMRUPA' Supercomputer facility in which IIT?
	A	IIT Guwahati
	B	IIT Bombay
	C	IIT Delhi
	D	IIT BHU
	E	None of the above
	Correct Answer	A
	Marks	1

61	Question Description	Which Indian city has won World Green City Award 2022?
	A	Pune
	B	Hyderabad
	C	Indore
	D	Bhopal
	E	None of the above
	Correct Answer	B
	Marks	1

62

Question Description	World Statistics Day is being observed on which date?
A	October 22
B	October 19
C	October 20
D	October 21
E	None of the above
Correct Answer	C
Marks	1

63

Question Description	When is the annual Indian Foreign Service (IFS) Day observed?
A	October 08
B	October 09
C	October 07
D	October 06
E	None of the above
Correct Answer	B
Marks	1

64	Question Description	Which Solar-Powered Village become India's 1st Net-Zero Energy Community?
	A	Baripatha
	B	Modhera
	C	Dharnai
	D	Kannauj
	E	None of the above
	Correct Answer	B
	Marks	1

65	Question Description	Which state has announced India's first 'Kadavur Slender Loris Sanctuary'?
	A	Himachal Pradesh
	B	Uttarakhand
	C	Madhya Pradesh
	D	Tamil Nadu
	E	None of the above
	Correct Answer	D
	Marks	1

66

Question Description

A train started from point A at a speed of 60 km/hr and after 2 hours another train of same length started from A at a speed of 80 km/hr in the same direction as the first one. After how much time the second train will meet the first train?

A

5 hours

B

3 hours

C

6 hours

D

8 hours

E

None of the above

Correct Answer

C

Marks

1

67

Question Description

Find the Missing Number?

7, 9, 12, 48, ?, 890

A

128

B

190

C

172

D

168

E

None of the above

Correct Answer

C

Marks

1

68

Question Description Pointing to a man, Rohan said, “His only brother is the father of my daughter’s father.” How is the Rohan related to the man?

A Father

B Grandson

C Uncle

D Nephew

E None of the above

Correct Answer D

Marks 1

69

Question Description

In each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

Is the average age of the students of a school less than 17 years?

Statement I : The strength of the class VIII is less than 25% of the strength of the school.

Statement II : The average age of the students of class VIII of the school is 18 years and that of the remaining classes is 16 years.

A

If the data in statement I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question

B

If the data in statement II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question

C

If the data either in statement I alone or in statement II alone is sufficient to answer the question

D

If the data in both statements I and II together are necessary to answer the question

E

None of the above

Correct Answer

D

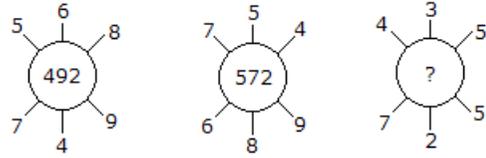
Marks

1

70

Question Description

Which one will replace the question mark ?

**A**

115

B

130

C

135

D

140

E

None of the above

Correct Answer

B

Marks

1

71

Question Description

Which one will replace the question mark ?

A ₂	C ₄	E ₆
G ₃	I ₅	?
M ₅	O ₉	Q ₁₄

A L₁₀

B K₁₅

C I₁₅

D K₈

E None of the above

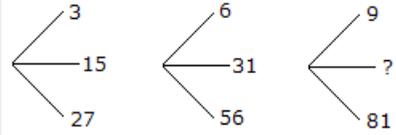
Correct Answer D

Marks 1

72

Question Description

Which one will replace the question mark ?

**A**

45

B

41

C

32

D

40

E

None of the above

Correct Answer

A

Marks

1

73

Question Description

Find the Missing Number?

47 58 71 79 95 ?

A

108

B

107

C

105

D

109

E

None of the above

Correct Answer

D

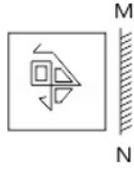
Marks

1

74

Question Description

If a mirror is placed on the line MN, which of the option figures shows the correct image of the given question figure?



A



B



C



D



A

A

B

B

C

C

D

D

E

None of the above

Correct Answer

C

75

Question Description	If Karan says, “Rocky’s mother is the only daughter of my mother”, How is Karan related to Rocky?
A	Brother
B	Father
C	Uncle
D	Grandfather
E	None of the above
Correct Answer	C
Marks	1