

1) 126 2) 136 3) 116 4) 128
Answer: 4
Directions: Select the related letter/word/number from the given alternatives. BCFG: HILM:: NORQ:
1) TUXW 2) TVWX 3) TXWU 4) TXUW
Answer: 1
Directions: Select the related letter/word/number from the given alternatives. ACEG: ZXVT:: BDFH:
1) IKMO 2) YUQM 3) YWUS 4) YVSP
Answer: 3
Directions: Select the related letter/word/number from the given alternatives. 8:9::56:

Directions: Select the related letter/word/number from the given alternatives

Answer: 2

1) 73 2) 72 3) 89 4) 90

7: 32 : : 28 :

Directions: Select the related letter/word/number from the given alternatives.

25:37::49:.....



1) 60	
2) 65	
3) 41	
4) 56	
Answer: 2	
Directions: Select the related letter/word/number from the given alternatives. Joy: Delight:: Gloomy:	
1) Dull	
2) Vague	
3) Plain	
4) Silent	
Answer: 1	
Directions: Select the related letter/word/number from the given alternatives. Gulp: Drink:: Rush:	
1) Hop	
2) Go	
3) Run 4) Jump	
Answer: 2	
Directions: Select the related letter/word/number from the given alternatives. ABCD: ZYXW: EFGH:	
1) EUTS	
2) POTS	
3) UOTS	
A) VIITS	



Directions: Select the related letter/word/number from the given alternatives.

Affluent	•	Opulent	•	•	Flourish	•	
Amacin	٠	Opulciit	•	٠	1 10 01 1311	•	••••

- 1) Flatter
- 2) Comprise
- 3) Outflow
- 4) Prosper

Answer: 4

Directions: Find the odd number/letters/number pair from the given alternatives.

- 1) Cheetah
- 2) Lion
- 3) Wolf
- 4) Tiger

Answer: 3

Directions: Find the odd pair from the given alternatives.

- 1) AT
- 2) HK
- 3) CF
- 4) JQ

Answer: 2

Solve: A(1) + T(20) 21

H (8) + K (11) 19 (Prime number)

C(3) + F(6) 9

J(10) + Q(17) 27

Hence, option (2) is the odd pair.

Directions: Find the odd number/letters/number pair from the given alternatives.

- 1) FED
- 2) JIH
- 3) WVU



4) PQR

Answer: 4

Directions: Find the odd number/letters/number pair from the given alternatives.

- 1) 82
- 2) 15
- 3) 65
- 4) 26

Answer: 2

Directions: Find the odd number/letters/number pair from the given alternatives.

- 1) 4-44
- 2) 6-64
- 3) 3-30
- 4) 5 35

Answer: 2

Solve: Except option (2), in all other options first number does not divide by second number.

Directions: Find the odd number/letters/number pair from the given alternatives.

- 1) DGJ
- 2) EHL
- 3) BEH
- 4) CFI

Answer: 2

Directions: Find the odd number/letters/number pair from the given alternatives.

- 1) SIM
- 2) USB
- 3) Modem
- 4) Disk



Answer: 1

Solve: Except SIM, all other words are related to computer.

Directions: Find the odd number/letters/number pair from the given alternatives.

- 1) 37
- 2) 47
- 3) 17
- 4) 27

Answer: 4

Solve: Except 27, all other numbers are prime numbers.

Directions: Find the odd number/letters/number pair from the given alternatives.

- 1) New Delhi
- 2) Kolkata
- 3) Chennai
- 4) Mumbai

Answer: 1

Solve: Except Delhi, all others are names of cities.

Directions: Which of the following words will appear last in the dictionary?

- 1) Prosecute
- 2) Prompt
- 3) Prostrate
- 4) Prize

Answer: 3

Directions: Which of the following words will appear last in the dictionary?

- 1) Revolve
- 2) Rheumatism
- 3) Reward



4) Rhapsody

Answer: 2

Which of the following words will appear last in the dictionary?

- 1) Heavy
- 2) Health
- 3) Heathen
- 4) Heartstrings

Answer: 1

Directions: A series is given with one term missing. Choose the correct alternative that will complete the series.

JkL AbC MnO DeF PqR Gh?

- 1) i
- 2) S
- 3) s
- 4) I

Answer: 4

Solve: J k L/A b C/M n O/D e F/P q R/G h I

Directions: A series is given with one term missing. Choose the correct alternative that will complete the series.

YXHGWVFEUTDCSRB?

- 1) C
- 2) I
- 3) A
- 4) D

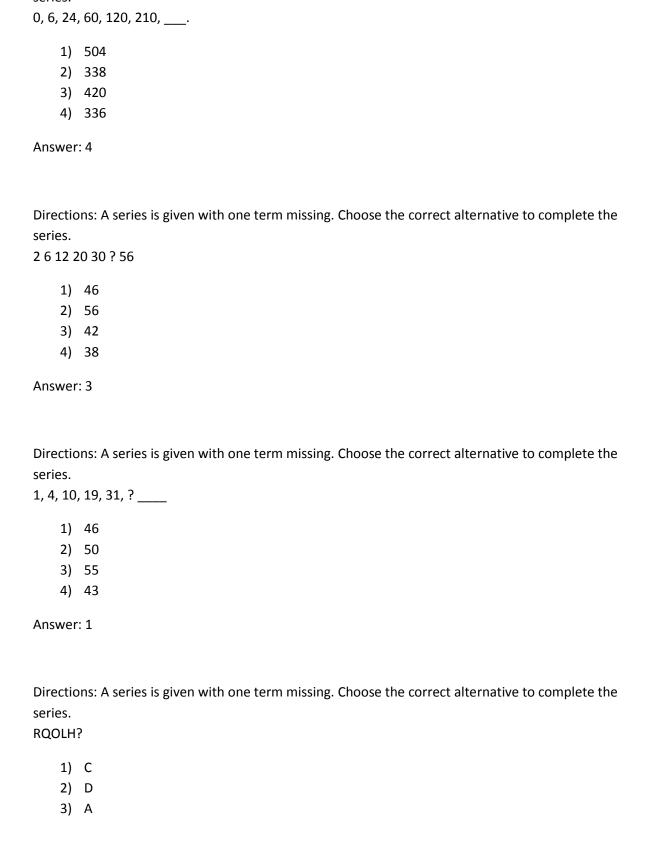
Answer: 3

Solve: YX HG WV FE UT DC SR BA

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Directions: A series is given with one term missing. Choose the correct alternative to complete the series.





4) B

Answer: 1

A husband and a wife had five married sons and each of them had four children. How many members are there in the family?

- 1) 36
- 2) 30
- 3) 40
- 4) 32

Answer: 4

Solve: A husband + A wife 2

Total numbers of sons of all sons 5 4 = 20

Total members in the family

$$= 2 + 10 + 20$$

= 32

In a certain code SURFER is written as RUSREF. How is KNIGHT written in that code?

- 1) GHTINK
- 2) INKTHG
- 3) THINKG
- 4) THGINK

Answer: 2

If AEIOU is written as BCJMV, how is XCKYB written in that code?

- 1) ADNZE
- 2) YELAC
- 3) YBLXC
- 4) YALWC



In the year 2003, some months have 31 days. How many months have 28 days?

1) Alte	rnate	months
---------	-------	--------

- 2) 6 months
- 3) 1 month
- 4) 12 months

Answer: 4

Solve: In the year 2003, all months have more than 28 days.

Directions: From the given alternatives, select the word which cannot be formed using the letters of the given word.

'Distribution'

- 1) Riot
- 2) Dust
- 3) Disturb
- 4) Tribute

Answer: 4

Solve: The letter 'e' is not present in the keyword and hence, the word 'tribute' cannot be made from the letters of the word 'Distribution'.

If 'MOTHER' is coded as 'NPUIFS', select the appropriate code from the answer choices, for the word in capital letters: ZENITH.

- 1) BGPKVJ
- 2) AFOJUI
- 3) AFOGHI
- 4) AFOGHJ

Answer: 2

In a certain code, DEMOCRACY is written as YCARCOMED, how will the word PRESIDENT be coded as?

- 1) NDSRPTEIE
- 2) TNEDISERP
- 3) RSDNPEIET
- 4) EIETPRSDN



Answer: 2

In a team of five players, Vani is older than Rani. Sita is younger than Vani, but older than Rani. Nita is younger than Mary and Rani. Rani is older than Mary. Whose age is in middle of all the five in this team?

- 1) Vani
- 2) Rani
- 3) Sita
- 4) Mary

Answer: 2

Solve: Decreasing order of the ages of all players: Vani > Sita > Rani > Mary > Nita

Five persons (R, S, T, U and V) are in a queue facing a reservation counter. Immediately behind S is U. T is standing between R and V. In between R and U, no one is there. Then, where is S standing in the queue?

- 1) First
- 2) Second
- 3) Last
- 4) Last but one

Answer: 1

Directions: Some equations are solved on the basis of a certain system depicted in the table given below. Find out the correct answer for the unsolved equation on that basis.

- 6 8
- 5 8 3
- 7 9 6

266 398 ?

- 1) 445
- 2) 515
- 3) 454
- 4) 544

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Some equations are solved on the basis of a certain system. Find out the correct answer for the unsolved equation on that basis.

$$4 \times 6 \times 9 = 649$$
,

$$9 \times 8 \times 4 = 894$$
,

$$3 \times 7 \times 2 = ?$$

- 1) 294
- 2) 732
- 3) 813
- 4) 272

Answer: 2

Two squads of soldiers A and B facing North and South, respectively received the following commands: right turn, left turn, left turn. Which directions would the squads A and B face at the end?

- 1) West, East
- 2) North, South
- 3) East, West
- 4) South, North

Answer: 4

If \times stands for +, \div stands for – and + stands for \div , which one of the following is correct?

1)
$$10-5 \times 6 \div 2 = 54$$

2)
$$15 + 3 \times 4 \div 3 = 6$$

3)
$$12 + 4 \div 2 - 7 = 8$$

4)
$$11-6 \div 4+2=64$$

Answer: 2

$$15 + 3 \times 4 \div 3$$

According to the question,

$$\Rightarrow$$
 15 ÷ 3 + 4 - 3

$$\Rightarrow$$
 5+4-3=6

Directions: Select the missing number from the given responses.



3 5 8 216 900 168

> 1) 55 2) 60

> 3) 70

4) 30

Answer: 4

Solve:
$$9 \times 8 \times 3 = 216$$

 $7 \times 3 \times 8 = 168 \text{ and } 6 \times ? \times 5 = 900$
 $? = \frac{900}{30} = 30$

Based on the given details, find out the number of postgraduates enrolled in a college for the year 1970. 1968 1969 1970 1971 1972

113 88 ? 63 59

1) 79

2) 72

3) 84

4) 63

Answer: 2

In a square-shaped hostel, there are 8 rooms on each side on every floor. Room No. 101 is the first room facing North on the first floor, the room numbers are continued clockwise. Which direction does room No. 125 face?

1) North

2) West

3) East

4) South

Answer: 3

Directions: Two statements are given, followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions if any, follow(s) from the given statements.

Statement All scholars are eccentric. Statement No woman is eccentric.

Conclusion I. No woman is scholar.

II. All eccentric are men.



- 1) Neither conclusion I nor II follows
- 2) Both conclusions I and II follows
- 3) Only conclusion I follows
- 4) Only conclusion II follows

Answer: 3

Solve: According to given statements, only conclusion I follows.

Directions: Here, two statements are followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follow(s) from the given statements.

Statements:

All students are girls.

No girl is dull.

Conclusion:

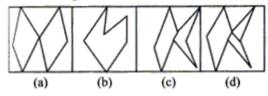
- I. There are no boys in the class.
- II. No student is dull.
 - 1) Both conclusions I and II follow
 - 2) Neither conclusion I nor II follows
 - 3) Only conclusion I follows
 - 4) Only conclusion II follows

Answer: 2

From the given answer figures, select the one in which the question figure is hidden/embedded. **Questions Figure**



Answer Figures



- 1) (a)
- 2) (b)
- 3) (c)



4) (d)

Answer: 1

<u>Directions:</u> A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g. P can be represented by 11, 23, etc. M and K can be represented by 58, 65, etc. Similarly, you have to identify the set for the word MARS.

	ı	Mat	rix	I.	
	0	1	2	3	4
0	Р	Α	1	٧	R
1	1	Ρ	R	Α	٧
2	Α	R	٧	Р	1
3	٧	1	Р	R	Α
4	R	٧	Α	ł	Р

	N	lat	rix	II	
,	5	6	7	8	9
5	S	L	Κ	М	Ε
6	K	М	S	Ε	L
7	М	Ε	L	Κ	S
8	L	K	Ε	S	М
9	Ε	S	М	L	K

- 1) 89, 20, 22, 79
- 2) 97, 41, 33, 96
- 3) 75, 13, 40, 67
- 4) 66, 34, 21, 56

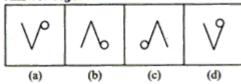
Answer: 3

Directions: If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?

Question Figure



Answer Figures



- 1) (a)
- 2) (b)
- 3) (c)



4) (d)

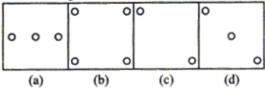
Answer: 1

<u>Directions:</u> A piece of paper is folded and punched as shown below in the question figure. From the given answer figures, indicate how will it appear when unfolded?

Question Figure



Answer Figures



- 1) (a)
- 2) (b)
- 3) (c)
- 4) (d)

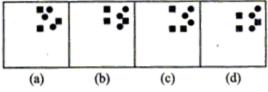
Answer: 3

<u>Directions:</u> Which answer figure will complete the question figure?

Question Figure



Answer Figures



- 1) (a)
- 2) (b)
- 3) (c)



4) (d)

Answer: 1

Earth is a very big magnet. In which direction does its magnetic field extend?

- 1) East to West
- 2) West to East
- 3) North to South
- 4) South to North

Answer: 4

Which of the following is meant for the ex-situ conservation of various species?

- 1) Herbarium
- 2) Sperm bank
- 3) Blood bank
- 4) Germplasm bank

Answer: 4

Drying oils contain a fairly large proportion of

- 1) saturated fatty acids
- 2) unsaturated fatty acids
- 3) fats
- 4) Proteins

Answer: 2

Human Development Index was formulated by

- 1) UNCTAD
- 2) ASEAN
- 3) IBRD
- 4) UNDP

Answer: 4

The infective stage of malaria is

- 1) merozoite
- 2) gametocyte



3) ring state

4) Sporozoite

Answer: 4

Who said that the Directive Principles of State Policy are just like "a cheque on bank payable at the convenience of the bank"?

- 1) N. G. Ranga
- 2) Pandit Nehru
- 3) K. Shah
- 4) B. R. Ambedkar

Answer: 4

Consumption for the sake of enjoying social acknowledgement is called

- 1) demonstration consumption
- 2) rational consumption
- 3) social consumption
- 4) conspicuous consumption

Answer: 4

The red, orange and yellow colours of leaves are due to

- 1) lignins
- 2) carotenoids
- 3) aldehydes
- 4) Tannins

Answer: 2

The state which has registered the highest population growth rate according to 2001 census is

- 1) Sikkim
- 2) Kerala
- 3) Uttar Pradesh
- 4) Nagaland



Torah is the sacred book of

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,	, ,,	uu	uı	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

- 2) Zoroastrianism
- 3) Confucianism
- 4) Taoism

Answer: 1

Pyroligneous acid obtained from wood contains

- 1) 10% ethanol
- 2) 10% formaldehyde
- 3) 10% acetic acid
- 4) 10% formic acid

Answer: 3

The treaty of Versailles restored Alsace-Lorraine to

- 1) Belgium
- 2) Italy
- 3) Britain
- 4) France

Answer: 4

The seat of Kerala High Court is located at

- 1) Ernakulam
- 2) Kottayam
- 3) Thiruvananthapuram
- 4) Kollam

Answer: 1

Polar bears hold cures for

- 1) kidney failure
- 2) type II diabetes
- 3) osteoporosis
- 4) breast cancer



Answer: 2

India making 'Double Taxation Avoidance Agreements' (DTAA) with other countries for the promotion of

- 1) foreign institutional investment
- 2) bilateral trade
- 3) external commercial borrowings
- 4) foreign direct investments

Answer: 2

Low cost housing is an example for

- 1) merit wants
- 2) mixes wants
- 3) social wants
- 4) private wants

Answer: 3

The disease that kills more people than lung cancer as a consequence of air pollution is

- 1) heart attack
- 2) chronic bronchitis
- 3) asthma
- 4) Emphesema

Answer: 4

Peninsular India has which of the following zonal soil types?

- 1) Alluvial soil
- 2) Red and yellow soil
- 3) Forest soil
- 4) Saline soil

Answer: 2

In 2011, Mamta Sharma was appointed as the chairperson of



- 1) National Commission for BCs
- 2) National Commission for Minorities
- 3) National Commission for Protection of Child Right
- 4) National Commission for Women

Answer: 4

"Eye for an eye and tooth for a tooth" is the guiding principle of

- 1) Reformative theory of Justice
- 2) Attributive theory of Justice
- 3) Retributive theory of Justice
- 4) Deterrent theory of Justice

Answer: 3

The proposal for the creation of new All-India Services can be considered only

- 1) if majority of State Legislatures make such demand
- 2) if the Lok Sabha passes a resolution by two-thirds majority
- 3) if the Rajya Sabha passes a resolution by two-thirds majority
- 4) none of these

Answer: 3

The Asokan Edicts were deciphered first by

- 1) James Prinsep
- 2) Sir John Marshall
- 3) Sir William Jones
- 4) Charles Wilkins

Answer: 1

An algae type ocean deposit is

- 1) pelagic deposits
- 2) neritic remains
- 3) diatom ooze
- 4) pteropod ooze



Which of the following pairs is correctly matched?

- 1) Gypsum-calcium hydroxide
- 2) Milk of lime-sodium sulphate
- 3) Glauber's salt-calcium sulphate
- 4) Salt petre-potassium nitrate

Answer: 4

Which of the following is not a correct statement?

- 1) Dilute solution contain less amount of solute
- 2) Phenols are acidic
- 3) In benzene all the atoms lie in one plane
- 4) Methylated spirit contains only methanol

Answer: 4

The most densely populated state in India is

- 1) Tamil Nadu
- 2) Kerala
- 3) Uttar Pradesh
- 4) West Bangal

Answer: 4

The first speaker of the Lok Sabha was

- 1) G. V. Mavlankar
- 2) S. Radhakrishnan
- 3) M. Ananthasayanam Ayyangar
- 4) Sardar Hukam Singh

Answer: 1

Who was the teacher of Gautama Buddha?

- 1) Patanjali
- 2) Panini
- 3) Alara Kalama



4) Kapila

Answer: 3

Which bank was the first to introduce ATMs?

- 1) Citibank
- 2) Hong Kong Bank
- 3) Standard Chartered Bank
- 4) Bank of America

Answer: 1

Which colour(s) of light has/have the highest velocity through vacuum?

- 1) Blue
- 2) Red
- 3) Green
- 4) All of the above

Answer: 4

The 98th Indian Science Congress was held in 2011 at

- 1) Bhubaneshwar
- 2) Bengaluru
- 3) Bhopal
- 4) Chennai

Answer: 4

The 34th National Games were held in 2011 in

- 1) Jharkhand
- 2) Uttarakhand
- 3) Kerala
- 4) Karnataka

Answer: 1

The iron and steel plant in Bihar is at



- 1) Vijay Nagar
- 2) Visakhapatnam
- 3) Bokaro
- 4) Burnpur

Answer: 3

The ultimate source of energy in a hydroelectric power station is

- 1) the electro-chemical energy of water
- 2) solar energy
- 3) the potential energy of water
- 4) the kinetic energy of water

Answer: 2

Union Carbide India Ltd. manufactured essentially

- 1) leather goods
- 2) heavy water
- 3) petrochemicals
- 4) fertilizers

Answer: 3

Photosynthetic vesicle found in bacteria is called a

- 1) pneumatophore
- 2) mesosome
- 3) chromatophore
- 4) Genophore

Answer: 3

What type of mirror is used in a view finding mirror of a vehicle?

- 1) Paraboloidal mirror
- 2) Convex mirror
- 3) Plane mirror
- 4) Concave mirror



W

e	rec	eive sunlight on Earth's surface. What type of light beams are these?
	1)	Diverging
	2)	Random
	3)	Parallel
	4)	Converging

Answer: 3

Who is the author of the book 'Pakistan: Beyond the Crisis State'?

- 1) Mj.Akbar
- 2) Khuram Iqbal
- 3) Maleeha Lodhi
- 4) Amir Mir

Answer: 3

The biggest planet in the solar system is

- 1) Uranus
- 2) Venus
- 3) Jupiter
- 4) Saturn

Answer: 3

The authority to specify which caste shall be deemed to be scheduled caste rests with the

- 1) Governor
- 2) Commissioner for Scheduled Castes and Tribes
- 3) Prime Minister
- 4) President

Answer: 4

Ram Sharan Sharma, who died in 2011 was an eminent

- 1) archaeologist
- 2) chemist
- 3) economist
- 4) Indologist



Answer: 4

Of the following economists, whom do you consider to be the Master of 'Partial Analysis'?

- 1) Lionel Robbins
- 2) Leon Wairas
- 3) Alfred Marshall
- 4) JM Keynes

Answer: 3

Brain drain has been caused by

- 1) socio-economic instability
- 2) failure to recognise talent in the originating country
- 3) the lure of high living standards
- 4) lack of employment opportunities

Answer: 3

What is m-commerce?

- 1) Marketing commerce
- 2) Machine commerce
- 3) Mobile commerce
- 4) Money commerce

Answer: 3

The study of population is known as

- 1) hydrology
- 2) demography
- 3) climatology
- 4) Petrology

Answer: 2

The prose collection of the vedic poems are

1) Brahmanas



- 2) Samhitas
- 3) Upanishads
- 4) Aranyakas

Answer: 2

A plant known only in cultivation having arisen under domestication is referred to as

- 1) clone
- 2) scion
- 3) cultigen
- 4) Cultivar

Answer: 3

Who favoured the Artic Home theory of the Aryans?

- 1) Jacobi
- 2) Pargiter
- 3) A. C. Das
- 4) B. G. Tilak

Answer: 4

Wheat, barley, lemon, orange, rye and pearl millet belong to

- 1) four different plant families
- 2) the same plant family
- 3) two different plant families
- 4) three different plant families

Answer: 3

The value of
$$\sqrt{-\sqrt{3}+\sqrt{3}+8\sqrt{7}+4\sqrt{3}}$$
 is

- 1) 3
- 2) 4
- 3) 1
- 4) 2

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The tangents drawn at the points A and B of a circle centered at O meet at P. If \angle AOB = 120°, then \angle APB : \angle APO is

- 1) 3:2
- 2) 4:1
- 3) 2:1
- 4) 2:5

Answer: 3

The distance between the points (0, 0) and the intersecting point of the graphs of x = 3 and y = 4 is

- 1) 3 unit
- 2) 2 unit
- 3) 5 unit
- 4) 4 unit

Answer: 3

The value of $(1 + \sec 20^{\circ} + \cot 70^{\circ}) (1 - \csc 20^{\circ} + \tan 70^{\circ})$ is

- 1) 1
- 2) 2
- 3) 1
- 4) 0

Answer: 2

The value of x when 5% $\sqrt{2x}$ is 0.01 will be

- 1) 0.02
- 2) 0.01
- 3) 0.05
- 4) 0.03

If
$$\sqrt{\frac{x-a}{x-b}} + \frac{a}{x} = \sqrt{\frac{x-b}{x-a}} + \frac{b}{x}$$
, $b \ne a$, then the value of x is



$$a + b$$

Answer: 1

The rate of simple interest at which a sum of money becomes three times in 25 years is

- 1) 8%
- 2) 5%
- 3) 4%
- 4) 6%

Answer: 1

A and B can separately do a piece of work in 20 and 15 days respectively. They worked together for 6 days after which B was replaced by C. The work was finished in the next 4 days. The number of days in which C alone could do the work is

- 1) 30 days
- 2) 45 days
- 3) 40 days
- 4) 35 days

Answer: 3

The odd element in the sequence 3, 7, 13, 21, 33, 43, 57 is

- 1) 33
- 2) 43
- 3) 7
- 4) 21

Answer: 1

A container has 80 L of milk. From this container 8 L of milk was taken out and replaced by water. The process was further repeated twice. The volume of milk in the container after that is

- 1) 58.23 L
- 2) 85.23 L
- 3) 58.32 L
- 4) 85.32 L



If $\sqrt{4x-9} + \sqrt{4x+9} = 5 + \sqrt{7}$, then the value of x is

- 1) 5
- 2) 7
- 3) 3
- 4) 4

Answer: 4

The average of the runs made by Raju, Shyam and Han is 7 less than that made by Shyam, Han and Kishore. If the number of Kishore's run is 35, what is Raju's run?

- 1) 21
- 2) 35
- 3) 7
- 4) 14

Answer: 4

A starts a business with Rs. 7000 and after 5 months B joined as a partner. After a year the profit is divided in the ratio 2:3. The capital of B is

- 1) Rs. 10000
- 2) Rs. 6500
- 3) Rs. 18000
- 4) Rs. 9000

Answer: 3

If $0 \le \alpha \le \frac{\pi}{2}$ and $2 \sin^{-\alpha} + 15 \cos^{2-\alpha} = 7$, then the value of $\cot^{-\alpha}$ is

- 1) ⁵/₄
- 2) 4
- 3) 4
- 4)



If a + b = 6, a - b = 2, then the value of 2 ($a^2 + b^2$) is

- 1) 30
- 2) 40
- 3) 10
- 4) 20

Answer: 2

If sin $2\theta = \frac{1}{2}$ then the value of cos $(75^\circ - \theta)$ is

- 1) 2

Answer: 1

A grain dealer cheats to the extent of 10% while buying as well as selling by using false weights. His total profit percentage is

- 1) 21%
- 2) 23%
- 3) 25%
- 4) 20%

Answer: 1

If $x \sin^3 \theta + y \cos^3 \theta = \sin \theta \cos^{\theta} \neq 0$ and $x \sin \theta - y \cos^{\theta} = 0$, then the value of $(x^2 + y^2)$ is

- 1) $\sin^{\theta} \cos^{\theta}$
- 2) $\sin^{\theta} + \cos^{\theta}$
- 3) 0
- 4) 1



The average of 1^2 , 2^2 , 3^2 , 4^2 , 5^2 , 6^2 , 7^2 , 8^2 , 9^2 , 10^2 is

- 1) 46.5
- 2) 50.5
- 3) 38.5
- 4) 42.5

Answer: 3

The radius of a circle is 13 cm and xy is a chord which is at a distance of 12 cm from the centre. The length of the chord is

- 1) 12 cm
- 2) 10 cm
- 3) 20 cm
- 4) 15 cm

Answer: 2

The three medians AD, BE and CF of ABC intersect at point G. If the area of ABC is 60 sq. cm, then the area of the quadrilateral BDGF is

- 1) 15 sq. cm
- 2) 20 sq. cm
- 3) 30 sq. cm
- 4) 10 sq. cm

Answer: 2

P and Q are the middle points of two-chords (not diameters) AB and AC respectively of a circle with centre at a point 0. The lines OP and OQ are produced to meet the circle respectively at the points R and S. T is any point on the major arc between the points R and S os the circle.

If \angle BAC = 32°, \angle RTS = ?

- 1) 74°
- 2) 106°
- 3) 64°
- 4) 32°

SSC CGL - Tier 1 – 2012



From the top of a cliff 90 m. high, the angles of depression of the top and bottom of a tower are observed to be 30° and 60° respectively. The height of the tower is

- 1) 60 m
- 2) 75 m
- 3) 30 m
- 4) 45 m

Answer: 1

A triangle is formed by the x-axis and the lines 2x + y = 4 and x - y + 1 = 0 as three sides. Taking the side along x-axis as its base, the corresponding altitude of the triangle is

- 1) 3 unit
- 2) $\sqrt{5}$ unit
- 3) 1 unit
- 4) 2 unit

Answer: 4

If P sin $\theta = \sqrt{3}$ and P cos θ + 1, then the value of P is

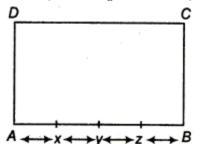
- 1) $\frac{2}{\sqrt{5}}$
- 2) √3
- 3) 2
- 4) 2

Answer: 3

Side AB of rectangle ABCD is divided into four equal parts by points x, y, z. The ratio of the

$$Area(\triangle XYC)$$

 $\overline{Area(RectangleABCD)}_{is}$





1)
$$\frac{1}{6}$$
2) $\frac{1}{9}$
3) $\frac{1}{8}$

Answer: 3

The marked price of a shop keeper for an article is 30% higher than the cost price. If he sells the article allowing 10% discount to customers, then the gain per cent will be

2)
$$12\frac{1}{2}\%$$

Answer:3

If $\sin (x + y) = \cos [3 (x + y)]$, then the value of $\tan [2(x + y)]$ is

$$\frac{1}{\sqrt{3}}$$

Answer: 1

If $\sec^{\theta} - \csc^{\theta} = 0$, then the value of $(\sec^{\theta} + \csc^{\theta})$ is

1)
$$\frac{2}{\sqrt{3}}$$

Answer: 3

Two equal circles pass through each other's centre. If the radius of each circle is 5 cm, what is the length of the common chord?

- 5√3 1)
- 2) 10√3
 - 5√3

Answer: 1

ABCD is a trapezium, such that AB = CD and ADIIBC. AD = 5 cm, BC = 9 cm. If area of ABCD is 35 sq. cm, then CD is

- 1) 5 cm
- 2) 6 cm
- 3) $\sqrt{12}$ cm
- 4) $\sqrt{29}$ cm

Answer: 4

If
$$a = \frac{2 + \sqrt{3}}{2 - \sqrt{3}}$$
 and $b = \frac{2 - \sqrt{3}}{2 + \sqrt{3}}$, then the value of $(a^2 + b^2 + ab)$ is

- 1) 195
- 2) 200
- 3) 175
- 4) 185

Answer: 1

The least positive integer which is a perfect square and also divisible by each of 21, 36 and 66 is

- 1) 213444
- 2) 254016
- 3) 156816
- 4) 186624



A certain number when divided by 899 leaves the remainder 65. When the same number is divided by 31, the remainder is

- 1) 3
- 2) 4
- 3) 1
- 4) 2

Answer: 1

If $u_n = \cos^n \alpha + \sin^n \alpha$, then the value of $2u_6 - 3u_4 + 1$ is

- 1) 4
- 2) 6
- 3) 0
- 4) 1

Answer: 3

If $x = \frac{1}{2 + \sqrt{3}}$, $y = \frac{1}{2 - \sqrt{3}}$, then the value of $\frac{1}{x + 1} + \frac{1}{y + 1}$ is

- 1) $\sqrt{3}$ 2) 1

Answer: 2

A man buys one table and one chair fore Rs. 500. He sells the table at a loss of 10% and the chair at a gain of 10%. He still gains Rs. 10 on the whole. The cost price of the chair is

- 1) Rs. 300
- 2) Rs. 350
- 3) Rs. 200
- 4) Rs. 250



Consider \triangle ABD such that \angle ADB = 20° and C is a point on BD such that AB = AC and CD = CA. Then, the measure of \angle ABC is

- 1) 45°
- 2) 60°
- 3) 30°
- 4) 40°

Answer: 4

If the length of a chord of a circle, which makes an angle 45° with the tangent drawn at one end point of the chord. is 6 cm, then the radius of the circle is

- 1) 5 cm
- 2) $3\sqrt{2}$ cm
- 3) 6 cm
- 4) $6\sqrt{2}$ cm

Answer: 2

A person travels 285 km in 6 h. In the first part of the journey, he travels at 40 kin/h by bus. In the second part, he travels at 55 km/h by train. The distance travelled by train is

- 1) 165 km
- 2) 615 km
- 3) 561 km
- 4) 156 km

Answer: 1

If
$$x = \frac{2\sqrt{6}}{\sqrt{3} + \sqrt{2}}$$
, then the value of $\frac{x + \sqrt{2}}{x - \sqrt{2}} + \frac{x + \sqrt{3}}{x - \sqrt{3}}$ is

- 1) √3
- 2) √6
- 3) 2



The diameter of garden roller is 1.4 m and it is 2 m long. The area covered by the roller in 5 revolution is

- 1) 4.4 m²
- 2) 44 mm²
- 3) 16.8 m²
- 4) 8.8 m²

Answer: 2

If x =
$$\frac{2\sqrt{24}}{\sqrt{3} + \sqrt{2}}$$
, then the value of $\frac{x + \sqrt{8}}{x - \sqrt{8}} + \frac{x + \sqrt{12}}{x - \sqrt{12}}$ is

- 1) 2
- 2) 0
- 3) -2
- 4) 1

Answer: 1

If G is the centroid and AD, BE, CF are three medians of \triangle ABC with area 72 cm², then the area of \triangle BDG is

- 1) 16 cm²
- 2) 24 cm²
- 3) 8 cm²
- 4) 12 cm²

Answer: 4

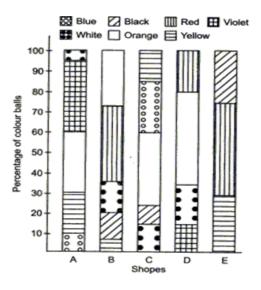
Two angles of a triangle are $\frac{1}{2}$ radian and $\frac{1}{2}$ radian. The measure of the third angle in $\left(\text{taking } \pi = \frac{22}{7}\right)_{\text{is}}$



$$\frac{132}{11}$$

Answer: 2

<u>Directions:</u> The following Bar Diagram shows the percentage of 7 coloured balls sold in 5 shops A, B, C, D and E. Study the graph and answer the question.

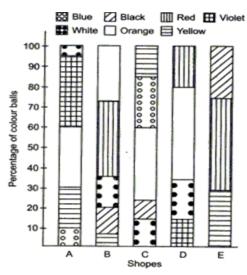


The ratio of total percentage of red balls and total percentage of orange balls is

- 1) 4:5
- 2) 9:11
- 3) 7:9
- 4) 1:1

Answer: 3

Directions: The following Bar Diagram shows the percentage of 7 coloured balls sold in 5 shops A, B, C, D and E. Study the graph and answer the question.



What fraction of the total percentage of colour balls is to the percentage of total yellow balls?

- 20 1)
- 25 2) 13
- 100 3) 7
- 50 4)

Answer: 4

Solve: Total percentage of yellow balls

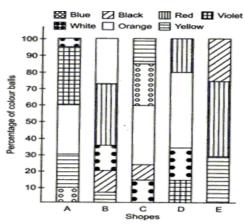
$$= 20 + 5 + 15 + 30 = 70$$

and total percentage of colour of balls

$$= 5 \times 100 = 500$$

 \therefore Required ratio = $\overline{500}$

<u>Directions:</u> The following Bar Diagram shows the percentage of 7 coloured balls sold in 5 shops A, B, C, D and E. Study the graph and answer all the question.



In shop A, the ratio of percentage of violet balls and yellow balls is

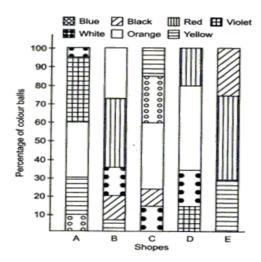
- 1) 7:4
- 2) 6:1
- 3) 2:4
- 4) 2:7

Answer: 1

Solve: In shop A, percentage of violet balls = 35 and percentage of yellow balls = 20

$$\therefore \text{ Required ratio} = \frac{35}{20}$$

<u>Directions:</u> The following Bar Diagram shows the percentage of 7 coloured balls sold in 5 shops A, B, C, D and E. Study the graph and answer all the question.



The difference between total number of % of violet balls and total number of % of blue balls is

- 1) 15
- 2) 25



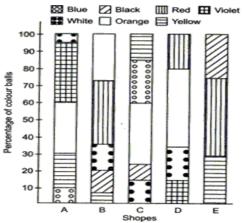
3) 40 4) 10

Answer: 1

Solve: Total percentage of violet balls = 35 + 15 = 50and total percentage of blue balls = 10 + 25 = 35

 \therefore Required difference = 50 - 35 = 15

Directions: The following Bar Diagram shows the percentage of 7 coloured balls sold in 5 shops A, B, C, D and E. Study the graph and answer all the question.



The shops having equal percentage of white balls are

- 1) C and E
- 2) B and C
- 3) A and B
- 4) A and C

Answer: 2

Solve: The shops B and C having equal percentage of white balls.

<u>Directions:</u> The sentence is divided into 3 parts a, b and c. One of these parts may have an error. Find out which part of the sentence has an error. If the sentence is free from errors, mark (d) as your answer.

The NCC commandant along with his cadets (a)/ are going to Delhi (b)/ to participate in the Republic Day Parade. (c)/ No error (d)

- 1) (a)
- 2) (b)



3) (c)

4) (d)

Answer: 2

Solve: The subject of the sentence is the NCC commandant. (The subject is separated from the verb by the words along with). The subject is singular so we will use singular verb; 'is going to Delhi'.

Directions: The sentence is divided into 3 parts a, b and c. One of these parts may have an errors. Find out which part of the sentence has an error. If a sentence is free from errors, mark (d) as your answer.

World is producing enough (a)/ for every citizen but still there is hunger and malnutrition (b)/ and it is continuing year after year. (c)/ No error (d)

- 1) (a)
- 2) (b)
- 3) (c)
- 4) (d)

Answer: 4

Directions: The sentence is divided into 3 parts a, b and c. One of these parts may have an errors. Find out which part of the sentence has an error. If a sentence is free from errors, mark (d) as your answer.

Many of the famous (a)/ advertising offices (b)/ are located at Madison Avenue. (c)/ No error (d)

- 1) (a)
- 2) (b)
- 3) (c)
- 4) (d)

Answer: 3

Solve: The correct use would be 'located on'.

Directions: The sentence is divided into 3 parts a, b and c. One of these parts may have an errors. Find out which part of the sentence has an error. If a sentence is free from errors, mark (d) as your answer.

Nature has denied us (a)/ the power of closing our ears (b)/ which she gave in respect of our eyes. (c)/ No error (d)

- 1) (a)
- 2) (b)
- 3) (c)



4) (d)

Answer: 3

Solve: Error of parallelism. As in the first part of the sentence we have 'has denied', we will use same part of speech and the correct phrase will be 'has given in respect of our eyes.'

Directions: The sentence is divided into 3 parts a, b and c. One of these parts may have an errors. Find out which part of the sentence has an error. If a sentence is free from errors, mark (d) as your answer.

He did not succeed (a)/ to get the job (b)/ though he tried his level best. (c)/ No error (d)

- 1) (a)
- 2) (b)
- 3) (c)
- 4) (d)

Answer: 2

Solve: The correct phrase will be 'in getting the job'.

Directions: In the question, a sentence is given with a blank to be filled in with an appropriate word. Choose the correct alternative out of the four.

As you sow shall you reap.

- 1) so
- 2) when
- 3) as
- 4) Like

Answer: 1

Solve: It is an idiom. 'So' is the correct answer.

Directions: In the question, a sentence is given with a blank to be filled in with an appropriate word. Choose the correct alternative out of the four.

It took him a long time the candidate's application.

- 1) to consider and to weigh
- 2) to considering
- 3) to consider and weigh



4) considering weighing

Answer: 3

Solve: To consider and weigh is the correct answer.

Directions: In the question, a sentence is given with a blank to be filled in with an appropriate word. Choose the correct alternative out of the four.

Who is the person you at the cinema last night?

- 1) had recognised
- 2) were recognising
- 3) recognised
- 4) have recognized

Answer: 3

Solve: Simple past tense is to be used.

Directions: In the question, a sentence is given with a blank to be filled in with an appropriate word. Choose the correct alternative out of the four.

The ladies black purse, which is on sale has a beautifulcarved on it.

- 1) schematic
- 2) motif
- 3) patch
- 4) Layout

Answer: 2

Solve: Clue is from the word 'carved'. Other options do not fit here.

Directions: In the question, a sentence is given with a blank to be filled in with an appropriate word. Choose the correct alternative out of the four.

He complemented hernew dress.

- 1) about
- 2) for
- 3) of
- 4) On



Answer: 4

Solve: Correct preposition is 'on'.

Directions: Choose the word which best expresses the meaning of the given word.

Forbearance

- 1) relevance
- 2) deliverance
- 3) patience
- 4) Extravagance

Answer: 3

Directions: Choose the word which best expresses the meaning of the given word.

Bequeath

- 1) surround
- 2) give
- 3) disclose
- 4) Scold

Answer: 2

Directions: Choose the word which best expresses the meaning of the given word.

Nonchalant

- 1) formal
- 2) imaginary
- 3) casual
- 4) Neutral

Answer: 3

Directions: Choose the word which best expresses the meaning of the given word.

Annexure



- 1) development
- 2) retirement
- 3) commencement
- 4) Attachment

Answer: 4

Directions: Choose the word which best expresses the meaning of the given word.

Errand

- 1) blunder
- 2) energy
- 3) task
- 4) Mistake

Answer: 3

Directions: Choose the word opposite in meaning to the given word.

Niggard

- 1) Miserly
- 2) Avaricious
- 3) Extravagant
- 4) Generous

Answer: 4

Directions: Choose the word opposite in meaning to the given word.

Amenable

- 1) Unwilling
- 2) Acquiescent
- 3) Distrustful
- 4) Inattentive

Answer: 1

Directions: Choose the word opposite in meaning to the given word.



Reproof

- 1) Appropriation
- 2) Approbation
- 3) Apposition
- 4) Condemnation

Answer: 2

Directions: Choose the word opposite in meaning to the given word.

Conspicuous

- 1) obscure
- 2) blatant
- 3) definite
- 4) Obvious

Answer: 1

Directions: Choose the word opposite in meaning to the given word.

Exotic

- 1) Indigenous
- 2) Conventional
- 3) Poor
- 4) Inexpensive

Answer: 1

Solve: Exotic means foreign, not native. So, opposite is indigenous.

Directions: In this question, four alternatives are given for the idiom/phrase in bold in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase.

She didn't realize that the clever salesman was taking her for a ride.

- 1) forcing her to go with him
- 2) trying to trick her
- 3) taking her in a car
- 4) pulling her along



Answer: 2

Directions: In this question, four alternatives are given for the idiom/phrase in bold in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase.

I jumped out of my skin when the explosion happened

- 1) was angry
- 2) was in panic
- 3) was excited
- 4) was nervous

Answer: 2

Directions: In this question, four alternatives are given for the idiom/phrase in bold in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase.

There is no point in discussing the new project with him as he always pours cold water on new ideas.

- 1) postpones
- 2) puts off
- 3) dislikes
- 4) disapproves of

Answer: 4

Directions: In this question, four alternatives are given for the idiom/phrase in bold in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase.

His speech has taken the wind out of my sails.

- 1) made me remember my past
- 2) made my words or actions ineffective
- 3) made me depressed
- 4) made me think of the future

Answer: 2

Directions: In this question, four alternatives are given for the idiom/phrase in bold in the sentence. Choose the alternative which best expresses the meaning of the idiom/phrase.



Regardless of what her parents said, she wanted to let her hair down that night.

- 1) Work till late
- 2) Really enjoy
- 3) Wash her hair
- 4) Comb her hair

Answer: 2

Directions: In the question, a part of the sentence is in bold which may need improvement. Choose the alternatives which improves the sentence. In case no improvement is needed select (4) as your answer.

It took her a long time to get past her failure in the medical examination.

- 1) through
- 2) over
- 3) by
- 4) no improvement

Answer: 2

Directions: In the question, a part of the sentence is in bold which may need improvement. Choose the alternatives which improves the sentence. In case no improvement is needed select (4) as your answer.

He was asleep before the mother tucked him off.

- 1) through
- 2) away
- 3) in
- 4) no improvement

Answer: 3

Directions: In the question, a part of the sentence is in bold which may need improvement. Choose the alternatives which improves the sentence. In case no improvement is needed select (4) as your answer.

I did not agree with him; he appeared to be so bigoted for me to concur.

- 1) much
- 2) away
- 3) too
- 4) no improvement

Answer: 3



Solve: The correct phrase is 'too bigoted for me'.

Directions: In the question, a part of the sentence is in bold which may need improvement. Choose the alternatives which improves the sentence. In case no improvement is needed select (4) as your answer.

As soon as she noticed the workmen, she asked them what they have been doing

- 1) have done
- 2) had been
- 3) are doing
- 4) no improvement

Answer: 2

Solve: 'what they had been doing' is the correct phrase.

Directions: In the question, a part of the sentence is in bold which may need improvement. Choose the alternatives which improves the sentence. In case no improvement is needed select (4) as your answer.

The boy wanted to ask his father for money, but waited for a propitious occasion.

- 1) protective
- 2) prophetic
- 3) prospective
- 4) no improvement

Answer: 4

Solve: No change required in the sentence.

Directions: Choose the option which can substitute the given words/sentence.

One thinks only about himself 'and not about others' needs

- 1) Egocentric
- 2) Egomaniacal
- 3) Egoistic
- 4) Egotistic

Answer: 1

Solve: Egocentric as person views everything in relation to oneself and is not bothered about others. Egoistic is also self-centered but it does not cover the phrase given completely.



Directions: Choose the option which can substitute the given words/sentence.

Something that cannot be explained.

- 1) Inexplicable
- 2) Unthinkable
- 3) Impregnable
- 4) Mysterious

Answer: 1

Directions: Choose the option which can substitute the given words/sentence.

A written declaration made on oath in the presence of a magistrate.

- 1) Document
- 2) Affidavit
- 3) Dossier
- 4) Voucher

Answer: 2

Directions: Choose the option which can be substituted for the given words/sentence.

A raised place on which offerings to a God are made.

- 1) Mound
- 2) Rostrum
- 3) Church
- 4) Altar

Answer: 4

Directions: Choose the option which can substitute the given words/sentence.

A guide-post pointing out the way for a place.

- 1) Lastpost
- 2) Finger post
- 3) Lamp-post
- 4) Checkpost

Answer: 2



Directions: Choose the correctly spelt word.

- 1) Veterinerian
- 2) Vaterinerian
- 3) Veterinarian
- 4) Vetarinerian

Answer: 3

Directions: Choose the correctly spelt word.

- 1) Equalibrium
- 2) Equalibirium
- 3) Equilibrium
- 4) Equilibriam

Answer: 3

Solve: Equilibrium (same spelling given as option A ... change it to equillibrium)

Directions: Choose the correctly spelt word.

- 1) Meritime
- 2) Marrytime
- 3) Marytime
- 4) Maritime

Answer: 4

Directions: Choose the correctly spelt word.

- 1) Degression
- 2) Digresion
- 3) Digrestion
- 4) Digression

Answer: 4

Directions: Choose the correctly spelt word.

1) Presomptous



- 2) Presumpchous
- 3) Presumtous
- 4) Presumptuous

Answer: 4

Directions: Read the passage carefully and answer the question that follows:

Passage I

People very often complain that poverty is a great evil and that it is not possible to be happy unless one has a lot of money. Actually, this is not necessarily true. Even a poor man, living in a small hut with none of the comforts and luxuries of life, may be quite contented with his lot and achieve a measure of happiness. On the other hand, a very rich man, living in a palace and enjoying everything that money can buy, may still be miserable, if, for example, he does not enjoy good health or his only son has taken to evil ways. Apart from this, he may have a lot of business worries which keep in him on tenterhooks most of the time. There is a limit to what money can buy and there are many things which are necessary for a man's happiness and which money cannot procure.

Real happiness is a matter of the right attitude and the capacity of being contented with whatever you have is the most important ingredient of this attitude".

Which of the following is the most appropriate title to the passage?

- 1) Money and Contentment
- 2) Poverty, a Great Evil
- 3) The Key of Happiness
- 4) Contentment, the Key to Happiness

Answer: 4

Solve: The last lines of the paragraph ... 'Real happiness is a matter of the right attitude ... the most important ingredient of this attitude.' Suggest the answer.

Which of the following statements is true?

- 1) A poor but contented man is always happy
- 2) Only a poor but contented man can be happy
- 3) A poor but contented man can never be happy
- 4) A poor but contented man can be happy

Answer: 4

Solve: The third sentence of the passage, "Even a poor man, may be quite contented achieve a measure of happiness."



It is true that

- 1) money alone cannot give happiness
- 2) money alone can give happiness
- 3) money always gives happiness
- 4) money seldom gives happiness

Answer: 1

Solve: The last line of first para suggests the answer "There is a limit to what money can buywhich money cannot procure."

A rich man's life may become miserable if he

- 1) has business worries and his only son has taken to evil ways
- 2) has evil son, bad health and business worries
- 3) does not enjoy good health
- 4) has business worries

Answer: 2

Solve: The fourth and fifth line of the passage give the answer.

The phrase 'on tenterhooks' means

- 1) in a state of forgetfulness
- 2) in a state of thoughtfulness
- 3) in a state of anxiety
- 4) in a state of sadness

Answer: 3

Solve: The phrase 'on tenterhooks' means in a state of anxiety.

Directions: Read the passage carefully and answer the question that follows.

Passage II

The problem of water pollution by pesticides can be understood only in context, as part of the whole to which it belongs-the pollution of the total environment of mankind. The pollution entering our waterways comes from many sources, radioactive wastes from reactors, laboratories, and hospitals; fallout from nuclear explosions; domestic wastes from cities and towns; chemical wastes from factories. To these is added a new kind of fallout-the chemical sprays applied to crop lands and gardens, forests and fields. Many of the chemical agents in this alarming melange initiate and augment the harmful effects of radiation, and within the groups of chemicals themselves there are sinister and littleunderstood interactions, transformations, and summations of effect.

Ever since the chemists began to manufacture substances that nature never invented, the problem of



water purification have become complex, and the danger to users of water has increased. As we have seen, the production of these synthetic chemicals in large volume began in the 1940's. It has now reached such proportion that an appalling deluge of chemical pollution is daily poured into the nation's waterways. When inextricably mixed with domestic and other wastes discharged into the same water, these chemicals sometimes defy detection by the methods in ordinary use by purification plants. Most of them are so complex that they cannot be identified. In rivers, a really incredible variety of pollutants combine to produce deposits that sanitary engineers can only despairingly refer to as 'gunk'.

Water pollution can only be understood

- 1) in relation to the number of pesticides that exist
- 2) in relation to world contamination
- 3) by the whole human race
- 4) in context

Answer: 4

Solve: 'in context' i.e. the whole situation or environment.

Water contamination has become serious

- 1) since businessmen authorised the use of chemicals
- 2) since water pollution was difficult to assess
- 3) since nature has taken a hand in pollution
- 4) since chemists began to use new substances

Answer: 4

Solve: The first sentence of the second paragraph gives the answer.

All the following words mean 'chemicals' except

- 1) deposits
- 2) sands
- 3) substances
- 4) Pesticides

Answer: 2

Solve: Sand is a natural element and not a chemical.



The main argument of paragraph 1 is

- 1) that pesticides are dangerous
- 2) that there are sinister interaction in the use of chemicals
- 3) that there are numerous reasons for contamination of water supplies
- 4) that there are many dangers from nuclear fallout

Answer: 2

Solve: The last sentence of the first para gives the answer ... 'Many of the chemical agents summations of effect.'

The word 'gunk' in the last line refers

- 1) to the domestic water supplies
- 2) to the waste products deposited by sanitary engineers
- 3) to the debris found in rivers
- 4) to unidentifiable chemicals found in water

Answer: 4

Solve: Last sentence of the second paragraph, "in rivers, a really incredible variety of pollutants refer to as 'gunk'."