Mock test – 12/09/2019

Q1. Train A can cross a man in 8 sec and a 180 m long platform 'P' in 17 sec. If train A cross train B which is running in opposite direction at speed of 108 km/hr in 8 sec, then find time taken by train B to cross platform P?

(a) 16 sec
(b) 11 sec
(c) 14 sec
(d) 12 sec
(e) 15 sec

S1. Ans(c)

Sol. Let length of train A be 'L' m and speed be 'V' m/s

ATQ –

$V = \frac{L}{8}$ ---------- (i)

And, $V = \frac{L+180}{17}$ ---------- (ii)

From (i) & (ii)

$\frac{L}{8} = \frac{L+180}{17}$

$17L - 8L = 1440$

$L = 160$ m

And $V = 20$ m/s

Let length of train B be 'S' m

So, $108 \times \frac{5}{18} + 20 = \frac{160+S}{8}$

$S = 400 - 160$

$S = 240$ m

Let time taken by train B to cross platform P be t sec

So, $108 \times \frac{5}{18} = \frac{240+180}{t}$

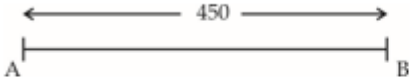
$t = \frac{420}{30} = 14\ sec$

Q3. The distance between two stations A and B is 450 km. A train starts from A and moves towards B at an average speed of 15 km/h. Another train starts from B, 20 min earlier than the train at A and moves towards A at an average speed of 20 km/h. How far from A will the two trains meet?

(a) 190 km
(b) 320 km
(c) 180 km
(d) 260 km
(e) 210 km

S3. Ans.(a)

Sol.



Distance travelled by B in 20 mins $= 20 \times \frac{20}{60} = \frac{20}{3}$ km

$\Rightarrow$ Remaining distance $= 450 - \frac{20}{3} = \frac{1330}{3}$

$\Rightarrow$ Time $= \frac{1330}{3\times(15+20)} = \frac{38}{3}$ hrs

$\Rightarrow$ Distance covered by A to meet B is $= 15 \times \frac{38}{3} = 190$ km

Q6. In an election between two candidates, one got 55% of total valid votes and 20% of the total votes casted were invalid. If total votes were 7500, then what is the number of valid votes that the other person got ?

(a) 2550
(b) 2670
(c) 2700
(d) 2850
(e) 2500

S6. Ans.(c)

Sol.

No. of valid votes that other person got

$= \frac{45}{100} \times \frac{80}{100} \times 7500$

$= \frac{9}{20} \times \frac{4}{5} \times 7500$

$= 2700$

Q8. The average age of a class of 20 students increases by 2 when 4 new students join. If the original average age was 18 years, then find the sum of ages of four students who join. (in years)

(a) 125
(b) 112
(c) 115
(d) 120
(e) 108

S8. Ans.(d)

Sol.

Let, sum of ages of 4 new students is x years,

$\frac{20\times18+x}{(20+4)} = (18 + 2)$

or, $360 + x = 24 \times 20$

or, $x = 480 - 360 = 120$ years

Q9. A and B started a business with the investments in the ratio of 5 : 3 respectively. After 6 months from the start of the business, C joined them and the respective ratio between the investments of B and C was 2 : 3. If the annual profit earned by them was Rs. 12300, what was the difference between B's share and C's share in the profit ?

(a) Rs. 900
(b) Rs. 800
(c) Rs. 600
(d) Rs. 400
(e) Rs. 700

S9. Ans.(a)

Sol.

A : B = 5 : 3 = 10 : 6

B : C = 2 : 3 = 6 : 9

A : B : C = 10 : 6 : 9 or 10x:6x:9x

Ratio of profit $= (10x \times 12) : (6x \times 12) : (9x \times 6)$

$= 20 : 12 : 9$

Required difference $= \frac{12-9}{41} \times 12300$

$= 900$ Rs.

Q10. The manufacturer of an article makes a profit of 5%, the wholesale dealer makes a profit of 10%, and the retailer makes a profit of 15%. Find the manufacturing price of the article if the retailer sold it for Rs. 5313.

(a) Rs. 4000
(b) Rs. 4500
(c) Rs. 5000
(d) Rs. 4950
(e) Rs. 4200

S10. Ans.(a)

Sol.

Let the manufacturing price is Rs. MP

$MP \times \frac{105}{100} \times \frac{110}{100} \times \frac{115}{100} = 5313$

MP = Rs. 4000

Q7. Mr. Roy bought a plot @ 400 rupees per sq. feet. After sometimes, he sold 40% of the plot @ 450 rupees per sq. feet and rest @ 500 rupees sq. feet. If dimensions of plot are 25 feet × 30 feet, then find his total profit in this transaction.

(a) Rs. 80,000
(b) Rs. 72,000
(c) Rs. 50,000
(d) Rs. 60,000
(e) None of these

S7. Ans. (d)

Sol. Total cost to Mr. Roy = 25 × 30 × 400 = 3,00,000 rupees

Total selling obtained by Mr. Roy $= \frac{2}{5} \times 25 \times 30 \times 450 + \frac{3}{5} \times 25 \times 30 \times 500$

= 1,35,000 + 2,25,000 = 3,60,000

Required profit = 360000 − 300000 = Rs. 60,000

Q8. Two groups of students, whose average ages are 15 years and 25 years, combine to form a third group whose average age is 22 years. What is the ratio of the number of students in the first group to that of in second group?

(a) 5: 2
(b) 2: 5
(c) 3: 7
(d) 5: 3
(e) 4: 5

S8. Ans.(c)
Sol.
Let the number of students in two groups be x & y
$\therefore 15x + 25y = 22(x + y)$
$\Rightarrow (25 - 22)y = (22 - 15)x$
$\Rightarrow 3y = 7x$
$\Rightarrow x : y = 3 : 7$

Q8. A man purchases two fans for Rs. 2,160. By selling one fan at a profit of 15% and the other at a loss of 9% he neither gains no loss in the whole transaction. Find the cost price of each fan (in Rs)?

(a) 710, 1450

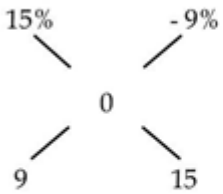
(b) 1530, 630

(c) 810, 1350

(d) 1340, 820

(e) None of these

S8. Ans.(c)
Sol.



Cost of first fan $= \frac{3}{8} \times 2160$
$= 3 \times 270 = 810$
Cost of second fan $= \frac{5}{8} \times 2160 = 1350$

Q3. There are two numbers such that the sum of twice the first number and thrice the second number is 100 and the sum of thrice the first number and twice the second number is 120. Which is the larger number ?

(a) 32
(b) 12
(c) 14
(d) 35
(e) 24

S3. Ans.(a)

Sol. Let the first number be x and second number be y

$\therefore 2x + 3y = 100$ .....(i)

$3x + 2y = 120$ .....(ii)

On solving,

$x = 32$ and $y = 12$

Q5. 'S1' is a series of five consecutive odd number while 'S2' is a series of five consecutive even numbers. Average of S1 series is 50% more than average of S2 series and sum of smallest numbers of S1 and S2 series is 67, then find the largest number of S2 series

(a) 49
(b) 41
(c) 36
(d) 34
(e) 32

S5. Ans. (d)

Sol.

Let, S_1 series be → (x - 4), (x -2), (x), (x+2), (x +4)

Let S_2 series be→ (y - 4), (y - 2), (y), (y + 2), (y + 4)

ATQ,

x = 1.5y

And, x -4 + y – 4 = 67

⇒ x + y = 75

⇒ 2.5y = 75

⇒ y = 30

largest no. of S_2 series = y + 4 = 30 + 4 = 34

A pigeon gets 300 grams as daily diet having mixture of X and Y. IF X has 10% protein and Y has 15% protein and if pigeon gets daily 38 gm protein, find the quantity of X in mixture.

(a)150 gm

(b)145 gm

(c)130 gm

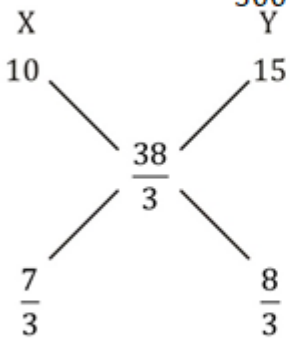
(d)140 gm

(e)None of these

S1. Ans.(d)

Sol. Since Pigeon gets 38 gm protein from 300 gm diet

$\therefore$ % protien diet $= \frac{38}{300} \times 100 = \frac{38}{3}\%$



X : Y = 7 : 8

$\therefore$ Quantity of X $= \frac{7}{15} \times 300 = 140$ gm

A bag contains 6 red balls and 8 green balls. Two balls are drawn at random one after one with replacement. What is the probability that both the balls are green?

(a) 13/49

(b) 15/49

(c) 16/49

(d) 17/49

(e) None of these

S4. Ans.(c)

Sol. Required Probability $= \frac{8}{14} \times \frac{8}{14} = \frac{64}{14 \times 14} = \frac{16}{49}$

A' can swim 54 km downstream in 4.5 hours while B can swim 27 km in upstream in 5.4 hours. if the speed of A in still water is 3 times that of the speed of the stream, then find the total time taken by A to cover 21 km in upstream and time taken by B to cover 55 km in downstream (speed of stream is same for A and B).

S5. Ans.(d)

Sol.

Speed of A in downstream $= \frac{54}{4.5} = 12$ km/hr

Let speed of A in still water be 3x km/hr

Speed of stream = x km/hr

Upstream speed of B $= \frac{27}{5.4} = 5\ km/hr$

Atq,

$4x = 12 \Rightarrow x = 3$ km/hr

Speed of stream = 3 km/hr

∴ speed of A in still water = 12 − 3 = 9 km/hr

Speed of B in still water = 5 + 3 = 8 km/hr

Required time $= \frac{21}{(9-3)} + \frac{55}{(8+3)}$

= 3.5 + 5 = 8.5 hr

Reasoning :

Directions (1-5): Study the information carefully and answer the questions given below.

Seven persons J, K, L, M, N, O and P are sitting in a circular table. All of them like different fruits i.e. Apple, Guava, Mango, Orange, Litchi, Grapes and Papaya but not necessary in same order. Three of them face towards the center and rest of them face outside the center. Only one person sits between P and the one who likes Litchi. M sits immediate right of the one who likes litchi. Two persons sit between the one who likes mango and the one who likes grapes. The one who likes grapes is neither immediate neighbor of M nor immediate neighbor of P. The one who likes apple is immediate right of P. M is not immediate neighbor of P. N sits third to the left of J, who likes guava. L sits second to the right of the one who likes orange. K sits immediate right to the one who likes Papaya. K does not like apple. M and L face opposite direction to each other. L does not face outside the center.

Q1. How many persons are sitting between K and O when counted from right of O?

(a) One
(b) Two
(c) Four
(d) Three
(e) None

Q2. Who among the following sits third to the right of the one who likes mango?

(a) O
(b) The one who likes Guava
(c) L
(d) The one who likes apple
(e) None of these

Q3. Who among the following sits second to the right of K?

(a) M
(b) The one who likes grapes
(c) the one who likes apple
(d) L
(e) None of these

Q4. Who among the following sits second to the right of J?

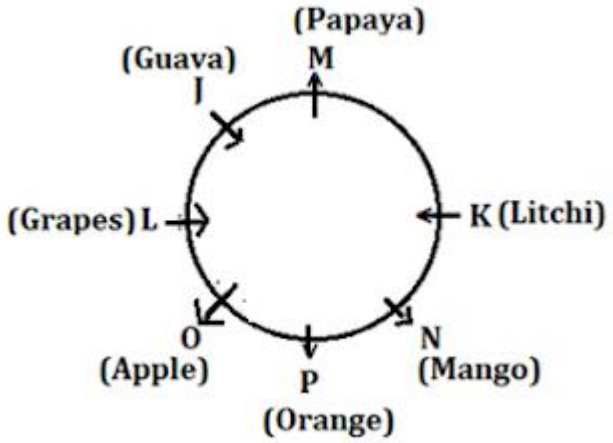
(a) O

(b) K
(c) N
(d) M
(e) None of these

Q5. If L and P interchange their positions, then who among the following sits immediate left of L?

(a) P
(b) N
(c) The one who likes orange
(d) The one who likes Guava
(e) None of these

Solutions (1-5):



S1.Ans(d)
S2.Ans(c)
S3.Ans(e)
S4.Ans(a)
S5.Ans(b)

Directions (6-8): Each question given below consists of a statement, followed by two arguments numbered I and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument. Give answer as:

(a) if only argument I is strong
(b) if only argument II is strong
(c) if either I or II is strong
(d) if neither I nor II is strong
(e) if both I and II are strong

Q6. Statement: Should the tuition fees in all post-graduate courses be hiked considerably?

Arguments: I. Yes. This will bring in some sense of seriousness among the students and will improve the quality.
II. No. This will force the meritorious poor students to stay away from post-graduate courses.

S6. Ans.(b)

Sol. A hike in fees is no means to make the students more serious in studies. So, argument I is vague. However, with the increase in fees, poor meritorious students would not be able to afford post-graduate studies. So, argument II holds.

Q1. Statements:

Some Moon are Sun

Some Sun are Helium

No Helium is Cheap

Conclusion:

I: All Cheap are Sun

II: Some Sun are not Cheap

(a) If only conclusion I follows.

(b) If only conclusion II follows.

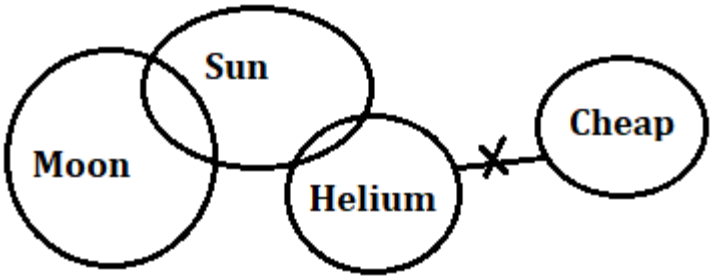
(c) If either conclusion I or II follows.

(d) If neither conclusion I nor II follows.

(e) If both conclusions I and II follow.

S1.Ans(b)

Sol.



Q2. Statements:

Atleast Music is Soul

No Soul is Laptop

All Laptop are Digital

Conclusion:

I: Some Digital are not Music

II: Some Digital are not Soul

(a) If only conclusion I follows.

(b) If only conclusion II follows.

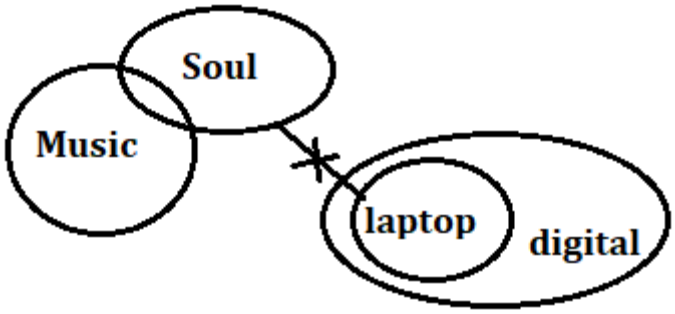
(c) If either conclusion I or II follows.

(d) If neither conclusion I nor II follows.

(e) If both conclusions I and II follow.

S2.Ans(b)

Sol.



Q6. Statements:

Some Reference is Review

Some Review are leader

Only a few leader are money

Conclusions:

I: All leader can be money

II: Some Review are Money is possibility

(a) If only conclusion I follows.

(b) If only conclusion II follows.

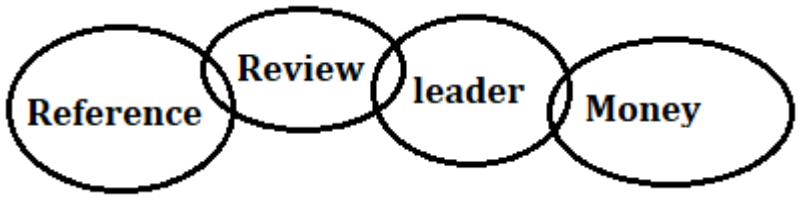
(c) If either conclusion I or II follows.

(d) If neither conclusion I nor II follows.

(e) If both conclusions I and II follow.

S6.Ans(b)

Sol.



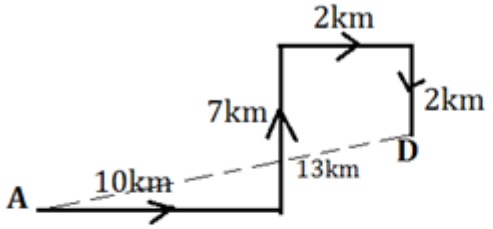
Directions (6-10): Each of the questions given below consists of a question and two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to

Q6. What is the distance between point A to point D?

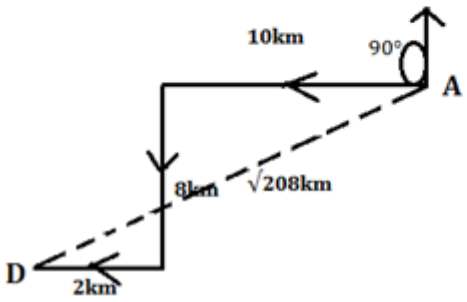
I. A person faces north direction and starts walking from point A, he walks 10km to his right after that he takes left turn and walks 7000m again he walks 2km towards his right. Finally he takes right turn walks 2km and reached at point D.

II. A person faces north direction and turns 90° from point A in anticlockwise direction and walked 10km. After that he takes left turn and walks 8km. Finally he takes right turn walks 2km and reached at point D.
(a) If statement I alone is sufficient to answer the question, but statement II by itself is not sufficient to answer the question.
(b) If statement II by itself is sufficient to answer the question, but statement I alone is not sufficient to answer the question.
(c) If statement either I or II is sufficient to answer the question.
(d) If both the statements I and II taken together are not sufficient to answer the question.
(e) If both the statements I and II taken together are sufficient to answer the question.

S6. Ans.(c)
Sol. From Statement-I Distance of AD= 13km



From Statement- II Distance of AD= $\sqrt{208}$km



Q7. What is the code for 'sky' in a code language?
I. In that language `jo ko ni sa' means 'Sky is the limit' and 'jo to ni ja' means 'Sky color is blue'.
II. In the same language 'jo ko ta na' means 'Sky has no limit'.
(a) If statement I alone is sufficient to answer the question, but statement II by itself is not sufficient to answer the question.
(b) If statement II by itself is sufficient to answer the question, but statement I alone is not sufficient to answer the question.
(c) If statement either I or II is sufficient to answer the question.
(d) If both the statements I and II taken together are not sufficient to answer the question.
(e) If both the statements I and II taken together are sufficient to answer the question.

S7. Ans.(e)
Sol. From Statement- I, we can find that 'Sky is' coded as 'jo ni'.
From Statement – II, we can find that 'Sky limit' is coded as 'jo ko'.
When we combine both statements we can find that 'Sky' is coded as 'jo'.

SET -1
Directions (1-5) In each of the questions given below a sentence is given in which an idiom (or some part) is given in bold. This sentence is then followed by five idioms. Choose the idiom which can fit here and make the sentence grammatically and contextually correct. If the given

idiom is correct as it is and requires no correction then choose option (e) as your correct answer choice.

Q1. You don't want to go into the NFL with some **dime a dozen** that you're somehow a victim of a system that can't stand you.
(a) chip on your shoulder
(b) piece of cake
(c) an arm and a leg
(d) bread and butter
(e) No improvement required

S1. Ans. (a)
Sol. Option (a) is the correct choice. “dime dozen” means something is extremely common, inexpensive or available anywhere. Therefore, the correct idiom required here is ‘chip on your shoulder’ which means an ingrained feeling of resentment deriving from a sense of inferiority and sometimes marked by aggressive behaviour.
piece of cake is often used to describe a situation that was easy, or required little effort.
An arm and a leg phrase is used to refer something that is very expensive.
Bread and butter means used in reference to something every day or ordinary.

Q2. A pilot performing this manoeuvre would be **on cloud nine** for a second enemy aircraft.
(a) off-base
(b) a sitting duck
(c) spilling the beans
(d) scot-free
(e) No improvement required

S2. Ans. (b)
Sol. Option (b) is the correct choice. ‘On cloud nine’ means being extremely happy making the sentence contextually incorrect. ‘A sitting duck’ means a person or thing with no protection against an attack or other source of danger. Thus, it makes the sentence logical.
Off base means mistaken; or relying on a mistaken premise.
Spilling the beans means to reveal secret information unintentionally or indiscreetly.
Scot-free means without suffering any punishment or injury.

Q3. Dark clouds are in the sky and it is usually **at eleventh hour** for rain to follow, so I need to hurry up and get my car inside the garage since it has a broken windshield.
(a) Draconian law
(b) par for the course
(c) Sword of Damocles
(d) once in a blue moon
(e) No improvement required

S3. Ans. (b)
Sol. Option (b) is the correct choice. ‘at eleventh hour’ means the last moment or almost late. Thus, the idiom given fails to make the sentence meaningful and logical. It should be replaced with the idiom ‘par for the course’ which means what is normal or expected in any given circumstances.
Draconian law means measures which are extremely harsh or severe.
Sword of Damocles means situation threatening imminent harm or disaster.
Once in a blue moon means very rarely.

Q4. One of my roommates had an essay due in a couple of days, and you could tell because his fingers were moving across the keyboard as fast as **head over heels!**
(a) hands down
(b) goody-two-shoes
(c) a man of straw
(d) greased lightning
(e) No improvement required.

S4. Ans. (d)
Sol. Option (d) is the correct choice. The idiom “head over heels” means falling deeply in love with another person. Thus, it doesn’t make the sentence comprehensible. However, “greased lightening” is

an expression that's used to describe someone or something that is very fast. Therefore, the idiom "greased lightening" provides the correct context to the sentence.
Hands down means anything that's easy or has no difficulty; something that has a certainty.
Goody-two-shoes means a virtuous person.
A man of straw means someone who has a weak character:

Directions (1-5): For each of the following sentences, four words are highlighted in bold and numbered as (A), (B), (C) and (D). One or more words have been swapped from their places and interchanged with another word which is highlighted and labeled. Choose the option which displays correct swapping of words making the sentence grammatically correct and contextually meaningful. If all words are in their places, choose option (e) as "No Correction Required".

Q1. JNU's registrar is review (A) them to submit(B) their curriculum vitae to a university-appointed committee(C) which will asking (D) their position.

(a) A-D
(b) A-C
(c) B-D
(d) A-D and B-C
(e) None of the above

S1. Ans. (a)
Sol. Here, replacing A-D will make the sentence contextually and grammatically correct.

Q2. India has not been able to advantage(A)its exports to take increase(B) of opportunities that have arisen(C) in global trade due to geopolitical(D) realignments.
(a) A-D
(b) A-B
(c) B-D
(d) A-D and B-C
(e) None of the above

S2. Ans. (b)
Sol. Here, (A) and (B) are incorrectly placed and replacing them with each other will make the sentence contextually correct.

Q3. The low inflation(A) rate that the Modi government likes to showcase(B) comes at the cost of our farmers and their incomes(C), by inflicting misery(D) on over 50% of India's population.
(a) A-D
(b) A-B
(c) B-D
(d) A-D and B-C
(e) None of the above
S3. Ans. (e)
Sol. Here, all the highlighted words are correctly placed, hence no replacement is required.

Q4. The government should confusion (A) the issue through diplomatic determine (B) with the U.S. government and channels (C) whether Mr. Trump made the comments out of pursue (D) or deliberately.
(a) A-D
(b) A-B
(c) B-D
(d) A-D and B-C
(e) None of the above
S4. Ans. (d)
Sol. After, replacing A-D and B-C, the sentence gets corrected grammatically and

contextually.

Q5. The organization has halt (A) leadership to many countries which in 10 years (2001-2010) could provided (B) the epidemic(C) and reverse the trend(D).
(a) A-D
(b) A-B
(c) B-D
(d) A-D and B-C
(e) None of the above

S5. Ans. (b)
Sol. Here, replacing A-B will make the sentence contextually correct.

Directions (6-10): In each of the questions given below, a sentence is given with one blank. Below each sentence, FOUR words are given out of which two can fit into the sentence. Five options are provided with various combinations of these words. You have to choose the combination with the correct set of words which can coherently fit into the given sentence.

Q6. AIDS affects the poor, the _____ communities disproportionately as they face challenges in accessing the 'test and treat' programs.

(I) marginalized,
(II) countryside
(III) located
(IV) strengthen

(a) (I) and (II)
(b) (I) and (IV)
(c) (II) and (III)
(d) (III) and (IV)
(e) None of these
S6. Ans. (a)
Sol. The most appropriate combination of words is "countryside and marginalized".

Q7. Operation Parakram (2001-02) — meant a sustained period of deep hostilities, with diplomatic missions _____.

(I) Downgraded
(II) Specified
(III) Doubled
(IV) Truncated

(a) (I) and (II)
(b) (I) and (IV)
(c) (II) and (III)
(d) (III) and (IV)
(e) None of these
S7. Ans. (b)
Sol. The most appropriate combination of words is, "Downgraded and truncated".

Q8. New Delhi's decision to embark on a course that will need _____ India-Pakistan meetings is nothing short of a breach of its otherwise firm "no talks without terror ending" policy.

(I) Stressed
(II) Regular
(III) Repeated
(IV) Installed

(a) (I) and (II)
(b) (I) and (IV)
(c) (II) and (III)
(d) (III) and (IV)
(e) None of these
S8. Ans. (c)
Sol. The most appropriate combination of words is, “regular and repeated”.

Q9. In the last few years, every avenue has been shut down from those for official, _____ talks.

(I) Several
(II) General
(III) Bilateral
(IV) Regional

(a) (I) and (II)
(b) (I) and (IV)
(c) (I) and (III)
(d) (III) and (IV)
(e) None of these
S9. Ans. (d)
Sol. The most appropriate combination of words is, “Bilateral and Regional”.

Q10. TPPs should also be required to submit verifiable evidence to _____ the disclosures.

(I) Support
(II) Substantiate
(III) Mediation
(IV) Deliberately

(a) (I) and (II)
(b) (I) and (IV)
(c) (II) and (III)
(d) (III) and (IV)
(e) None of these

S10. Ans. (a)
Sol. The most appropriate combination of words is, “ Support and Substantiate”.