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CSAT 2011 Solved paper – 2

SET-A

Directions for the following 8 (eight) items:

Read each of the following two passages and answer the items that follow. Your answers to these items should be based on the passages only.

Passage-I

For achieving inclusive growth there is-a critical need to rethink the-role of the State. The early debate among economists about the size of the Goverment can be misleading. The need of the hour is to have an enabling Government. India is too large and complex a nation for the State to be able to deliver all that is needed. Asking the Government to produse all the essential goods, create all the necessary jobs, and keep a curb on the prices of all goods is to lead to a large cumbersome bureaucracy and widespread corruption. The aim must be to stay with the objective of inclusive growth that was laid down by the founding fathers of the nation and also to take a more modern view of what the State can realistically deliver. This is what leads to the idea of an enabling State, that is, a Government that does not try to directly deliver to the citizens everything that they need. Instead, it (1) creates an enabling ethos for the market so that individual enterprise can flourish and citizens can, for the most part, provide for the needs of one another, and (2) steps in to help those who do not manage to do well for themselves, for there will always be individuals, no matter what the system, who need support and help. Hence we need a Government that, when it comes to the market, sets effective, incentive-compatible rules and remains on the sidelines with minimal interference, and, at the same time, plays an important role in directly helping the poor by ensuring that they get basic education and health services and receive adequate nutrition and food .

1. According to passage :

1. The objective of inclusive growth was laid down by the founding fathers of the nation.
2. Need of the hour is to have an enabling Government.
3. The Government should engage in maximum interference in market processes.
4. There is a need to change the size of the Government.

Which of the statements given above are correct ?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 4 only
(d) 1, 2, 3 and 4

Solution: a)

All statements that are correct have been explicitly mentioned in the passage.

2. According to the passage, the strategy of inclusive growth can be effected by focussing on

(a) meeting all the needs of every citizen in the country.
(b) Increasing the regulations over the manufacturing sector.
(c) Controlling the distribution of manufacturing goods.
(d) Delivery of the basic services to the deprived sections of the society.

Solution: d)

The last paragraph clearly states that the government that focuses on the basic services that must be delivered to the deprived sections of the society promotes effective inclusive growth.

Others are out of context.

3. What constitutes an enabling Government?

1. A large bureaucracy.
2. Implementation of welfare programmes through representatives.
3. Creating an ethos that helps individual enterprise
4. Providing resources to those who are underprivileged.
5. Offering direct help to the poor regarding basic services.

Select the correct answer from the codes given below :

(a) 1, 2 and 3 only
(b) 4 and 5 only
(c) 3, 4 and 5 only
(d) 1, 2, 3, 4 and 5

Solution: c)

Statements 3, 4 and 5 have been stated in the passage. Statement 2 is not mentioned in the passage and statement 1 is not supported by the passage. In fact, it states that asking the government to produce all the necessary goods and jobs would lead to a large bureaucracy.

4. Why is the State unable to deliver "all that is needed"?

1. It does not have sufficient bureaucracy.
2. It does not promote inclusive growth.

Select the correct answer from the codes given below :

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Solution: d)

The passage clearly mentions that large bureaucracy for delivering inclusive growth is a problem (it is not state can't have large bureaucracy).

For the second statement, the passage mentions that "India is too large and complex a nation for the State to be able to deliver all that is needed. Asking the Government to produce all the essential goods, create all the necessary jobs, and keep a curb on the prices of all goods is to lead to a large cumbersome bureaucracy and widespread corruption."

So promotion of inclusive growth can happen but will be very cumbersome and ineffective.

5. What is essential message being conveyed by the author of the passage?

(a) The objectives of inclusive growth laid down by the founding fathers of the nation should be remembered.
(b) The Government needs to make available more schools and health services.
(c) The Government needs to establish markets and industries to meet the needs of the poor strata of the society.
(d) There is a need to rethink the role of the State in achieving inclusive growth.

Solution: d)

The very first few lines contain the whole essence of the passage. Rest all can be easily eliminated.

Passage-2

The concept of 'creative society' refers to a phase of development of a society in which a large number of potential contradictions become articulate and active. This is most evident when oppressed social groups get politically mobilised and demand their rights. The upsurge of the peasants and tribals, the movements for regional autonomy and self-determination, the environmental movements, and the women's movements in the developing countries are signs of emergence of creative society in contemporary times. The forms of social movements and their intensity may vary from country to country and place to place within a country. But the very presence of movements for social transformation in various spheres of a society indicates the emergence of a creative society in a country.

6. What does the author imply by "creative society"?

1. A society where diverse art forms and literary writings seek incentive.
2. A society where social inequalities are accepted as the norm.
3. A society where a large number of contradictions are recognised.
4. A society where' the exploited and the oppressed groups grow conscious of their human rights and upliftment.

Select the correct answer using the codes given below :

(a) 1, 2 and 3
(b) 4 only
(c) 3 and 4
(d) 2 and 4

Solution: c)

Consider these – "The upsurge of the peasants and tribals, the movements for regional autonomy and self-determination" and "a society in which a large number of potential contradictions become articulate and active"; you have the answer.

7. What according to the passage are the manifestations of social movements?

1. Aggressiveness and being incendiary.
2. Instigation by external forces.
3. Quest for social equality and individual freedom.
4. Urge for granting privileges and self-respect to disparaged sections of the society.

Select the correct answer using the codes given below:
(a) 1 and 3 only

(b) 2 and 4 only
(c) 3 and 4 only
(d) 1, 2, 3 and 4

Solution: c)

Work by elimination first. So 1 and 2 are ofourse not correct as they don't find a mention in the passage (they do in the news channels though, but not relevant to the passage).

Hence, the answer has to be (c)

8. With reference to the passage consider the following statements:
1. To be a creative society, it is essential to have a variety of social movements.
2. To be a creative society, it is imperative to have potential contradictions and conflicts.

Which of the statements given above is/are correct ?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Solution: d)

Consider the first few lines – "a phase of development of a society in which a large number of potential contradictions become articulate and active. This is most evident when oppressed social groups get politically mobilised and demand their rights".

You might choose (b) as the answer, but No. Because they have tried to invert the logic given in the passage if you can see it. If potential contradictions exist, it's a creative society; but nowhere its written that only because of potential contradictions can a society be creative.

9. Consider the following three statements:

1. Only students can participate in the race.
2. Some participants in the race are girls.
3. All girl participants in the race are invited for coaching.

Which one of the following conclusions can be drawn from the above statements?

(a) All participants in the race are invited for coaching.
(b) All students are invited for coaching.

(c) All participants in the race are students.
(d) None of the statements (a), (b) and (c) given above is correct.

Solution: c)

Option C can be easily seen from statement 1.

Others are not correct as if you can draw the Venn diagram. Let students be a bigger group out of which people participate in race. Out of students let Girls be a sub-group; and let these two groups intersect as given in the statement. Now draw the coaching group; it will look something like this.
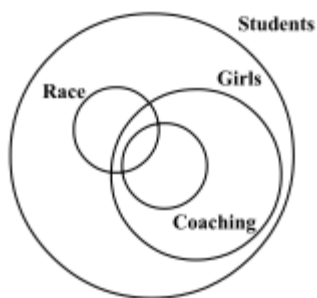
Directions for the following 2 (two) items:

Each of the following two items consists of four statements. Of these four statements, two cannot both be true, but both can be false. Study the statements carefully and identify the two that satisfy the above condition. Select the correct answer using the codes given below each set of statements :

10. Examine the following statements:

1. All animals are carnivorous.
2. Some animals are not carnivorous.
3. Animals are not carnivorous.
4. Some animals are carnivorous.

Codes:
(a) 1 and 3
(b) 1 and 2
(c) 2 and 3
(d) 3 and 4

Solution: a)

The approach of solving such questions is that you check the validity of each and every statement for each option. Consider any one statement to be true at one time, and then check whether that option combination can be correct. Check all 4 like this, you will know.

Consider S1: If all animals are carnivorous, then the statement 3 is wrong. And if 3 is right, 1 is wrong. So, both are not true together. But if some animals are carnivorous (as per S4), the both of these are false. Hence correct option is (a).

Consider S2: if 1 is correct, 2 is false. If 2 is correct, 1 has to be false. Now check other statements, 3 and 4. If 3 is correct, then 1 is incorrect, but 2 can be correct.

Consider S3: Both can be true at the same time. Hence incorrect option.

Consider S4: If 3 is correct, 4 is incorrect and vice versa. If 1 is correct, then 3 is incorrect, but 4 can be correct. If 2 is correct, then 3 can be correct, but 4 will be incorrect.

11. Examine the following statements:
1. All trains are run by diesel engine.
2. Some trains are run by diesel engine.
3. No train is run by diesel engine.
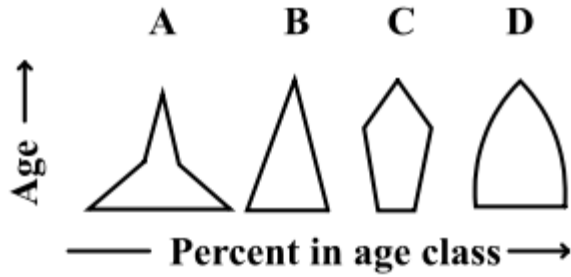4. Some trains are not run by diesel engine.

Codes:

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

Solution: c)

This question is exactly similar to the one above. Only the wordings have been changed. Apply the exact same technique.

12. Consider the four age pyramids given below namely A, B, C and D representing four different countries.

Which one of them indicates the declining population ?

(a) A
(b) B
(c) C
(d) D

Solution: c)

The base in the pyramid denotes the number of children and the top denotes number of senior citizens. Now clearly if the top is wider than the bottom, it means fewer births are taking place and more deaths are taking place. So population will reduce.

13. The followings figures has four curves namely A, B, C and D, Study the figure and answer the item that follows.
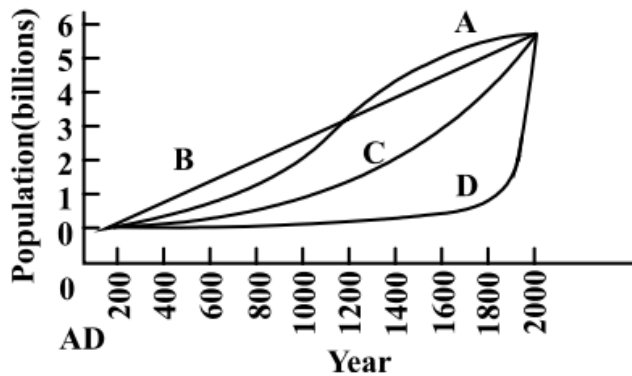
Which curve indicates the exponential growth ?

(a) A
(b) B
(c) C
(d) D

Solution: c)

Exponential curve is the one where the slope of the curve increases exponentially. The equation is $y = e^x$

Curve A is not exponential as it shows a slight decrease.

Curve B is also not exponential (it is linear)

Curve D is not exponential as it remains constant for a period of almost upto 1000 years and then shows a sudden increase.

Curve C is exponential as it increases continuously and also slowly in the early stage and at a fast pace in later stages.

**Directions for the following 2 (two) items:**

The following pie charts show the break-up of disease categories recorded in the patients from two towns, Town A and Town B. Pie charts plot the disease Categories as percentage of the total number of patients. Based on these, answer the two items that follow the charts.

14. Which of the two towns has a higher number of persons with Diabetes?

Distribution of diseases in Town - A
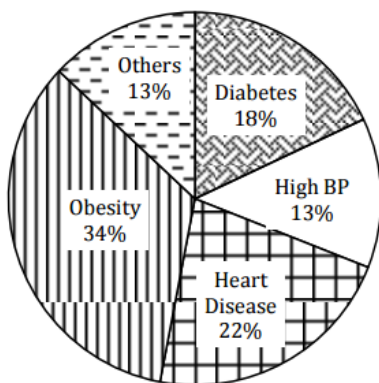
Distribution of diseases in Town - B
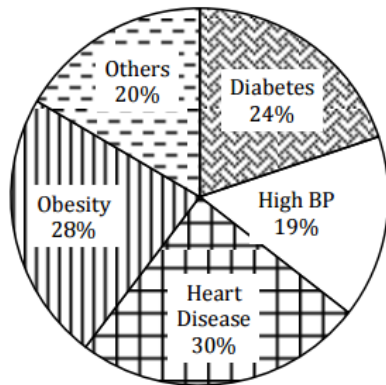
(a) Town A
(b) Town B
(c) Same in Town A and Town B
(d) No inference can be drawn

Solution: d)

Simple question. As the total population of Town A and Town B is not given we cannot determine the number of persons with diabetes.

15. What can we say about persons with more than one disease from these graphs ?
(a) There are likely to be persons with more than one disease in Town A.
(b) There are likely to be persons with more than one disease in Town B.
(c) There are likely to be persons with more than one disease in both Towns A and B.
(d) No inference can be drawn.

Solution: b)

If you add all the percentages of the pie chart for both the towns, town A = 100%, but town B = 121%. Only if a person has more than one disease, can he be counted twice, which will increase the percentage.

16. Consider the following Velocity-Time graph. It shows two trains starting simultaneously on parallel tracks.
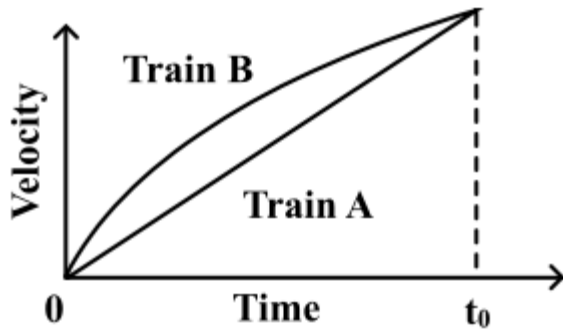
With reference to the above graph, which one of the following statements is not correct ?

(a) Train B has an initial acceleration greater than that of Train A.
(b) Train B is faster than Train A at all times.
(c) Both trains have the same velocity at time to'
(d) Both trains travel the same distance in time to units.

Solution: d)

Acceleration in a velocity time graph can be seen from the graph's slope (tilt with respect to horizontal). B's slope is more than A, which means for the same time period, it is changing velocity faster than that of A. Hence more acceleration.

Option (b) and (c) can be verified from y-axis.

To calculate distance in a velocity-time graph, simply take the area under the curve. It is more for B than A.

Directions for the following 6 (six) items:

Read each of the following two passages and answer the items that follow. Your answers to these items should be based on the passages only.

Passage-1

Ecosystems provide people with a variety of goods and services; food, clean water, clean air, flood control, soil stabilization, pollination, climate regulation, spiritual fulfilment and aesthetic enjoyment, to name just a few. Most of these benefits either are irreplaceable or the technology necessary to replace them is prohibitively expensive. For example, potable fresh water can be provided by desalinating sea-water, but only at great cost. The rapidly expanding human population has greatly modified the Earth's ecosystems to meet their increased requirements of some of the goods and services, particularly food, fresh water, timber, fibre and fuel. These modifications have contributed substantially to human well being and economic development. The benefits have not

been equally distributed. Some people have actually been harmed by these changes. Moreover, short-term increases in some ecosystem goods and services have come at the cost of the long-term degradation of others. For example, efforts to increase the production of food and fibre have decreased the ability of some ecosystems to provide clean water, regulate flooding and support biodiversity.

17. With reference to the passage, consider the following statements.
Expanding human' population has an adverse effect on:

1. Spiritual fulfilment
2. Aesthetic enjoyment
3. Potable fresh water
4. Production of food and fibre
5. Biodiversity

Which of the statements given above are correct ?

(a) 1, 2 and 3 only
(b) 2, 4 and 5 only
(c) 3 and 5 only
(d) 1, 2, 3, 4 and 5

Solution: c)

Look at the paragraph – "For example, efforts to increase the production of food and fibre have decreased the ability of some ecosystems to provide clean water, regulate flooding and support biodiversity." Only this has been mentioned as the adverse effects. Others have been mentioned as services provided by ecosystem to humans.

18. The passage mentions that "some people have actually been harmed by these changes." What does it imply?

1. The rapid expansion of population has adversely affected some people.
2. Sufficient efforts have not been made to increase the production of food and fibre.
3. In the short term some people may be harmed, but in the long term everyone will benefit from modifications In the Earth's ecosystems.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2

(c) 1 and 3
(d) None of the statements given above

Solution: a)

"The benefits have not been equally distributed. Some people have actually been harmed by these changes." – this paragraph answers the question.

Other two statements are the opposite of what the passage mentions.

19. With reference to the passage, consider the following statements:

1. It is imperative to modify the Earth's ecosystems for the well being of mankind.
2. Technology can never replace all the goods and services provided by ecosystems.

Which of the statements given above is/are correct ?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Solution: b)

"The rapidly expanding human population has greatly modified the Earth's ecosystems to meet their increased requirements of some of the goods and services, particularly food, fresh water, timber, fibre and fuel. These modifications have contributed substantially to human well being and economic development". So statement 1 is the opposite of the problem stated in the passage.

Moreover, the technology required to replace ecosystem services will be prohibitively expensive, so statement 2 is correct.

Paasage-B:

A moral act must be our own act; must spring from our own will. If we act mechanically, these is no moral content in our act. Such action would be moral, If we think it proper to act like a machine and do so. For, in doing so, we use our discrimination. We should bear in mind the distinction between acting mechanically and acting intentionally. It may be moral of a king to pardon a culprit. But the messenger carrying out the order of pardon plays only a mechanical part in the king's moral act. But if the messenger were to carry out the king's order considering it to be his duty, his action would be a moral one. How can a man understand morality who does not use his own intelligence and power

of thought, but lets himself be swept along like a log of wood by a current? Sometimes a man defies convention and acts on his own with a view to absolute good.

20. Which of the following statements best describe/describes the thought of the writer?

1. A moral act calls for using our discretion.
2. Man should react to a situation immediately.
3. Man must do his duty.
4. Man should be able to defy convention in order to be moral.

Select the correct answer from the codes given below :

(a) 1 only
(b) 1 and 3
(c) 2 and 3
(d) 1 and 4

Solution: d)

First sentence supports statement 1. Statement 2 does not specify the situation and is out of context. Statement 3 can't be true with the example given in the passage, of the messenger and the king.

21. Which of the following statements is the nearest definition of moral action, according to the writer ?
(a) it is a mechanical action based on official orders from superiors.
(b) It is an action based on our sence of discretion.
(c) It is a clever action based on the clarity of purpose.
(d) It is a religious action based on understanding.

Solution: b)

The first few sentences say that moral act must be based on our own discretion. Other statements are quoted out of context.

22. The passage contains a statement "lets himself be swept along like a log of wood by a current." Among the following statements, which is/are nearest in meaning to this?
1. A person does not use his own reason.
2. He is susceptible to influence/pressure.
3. He cannot withstand difficulties/challenges.
4. He is like a log of wood.

Select the correct answer using the codes given below:

(a) 1 only
(b) 1 and 2
(c) 2 and 3
(d) 1 and 4

Solution: a)

Last few sentences indicate that man does not use his own reason and he allows himself to be influenced by external factors. Hence statement 1 and 2 are apt. Statement 3 is not supported in the passage and statement 4 does not deliver relevant meaning.

23. Consider the following distance - time graph. The graph shows three athletes A, B and C running side by side for a 30 km race.
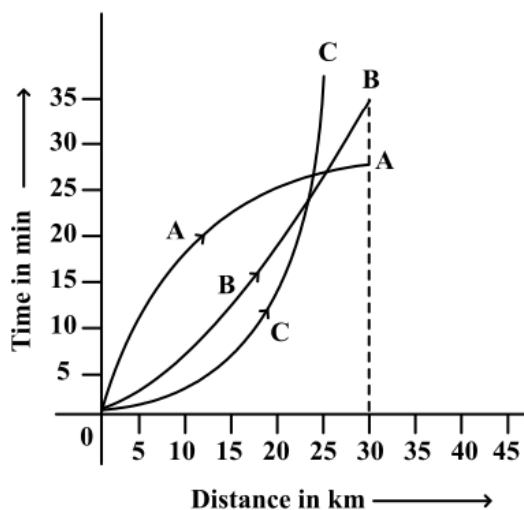
With reference to the above graph consider the following statements :

1. the race was won by A.
2. B was ahead of A up to 25 km 26 mark.
3. C ran very slowly from the begining.
Which of the statements given above is/are correct ?

(a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Solution: b)

As per the graph, A has taken just below 30 min to complete the race whereas B has taken more than 35 min and C did not finish the race. So statement 1 is correct.

B has taken less time than A upto 25 km. Hence B was ahead of A upto 25 km. So statement 2 is also correct.

You can observe that C has taken less time than A and B upto 25 km. So, statement 3 is wrong.

24. Consider the following figures:

2	6
80	24

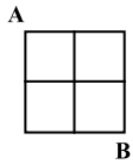| 3	?
120	36

What is the missing number?

(a) 7
(b) 8
(c) 9
(d) 10

Solution: c)

6, second column = 2 multiplied by 3; 24 = 6 X 4 and 80 = 2 X 40

Use the same pattern. So, 36 should be multiplied by 4 to get 9 (which is also 3 times 3).

25. Study the following figure:

A person goes from A to B always moving to the right or downwards along the lines. How many different routes can he adopt?

Select the correct answer from the codes given below:

(a) 4
(b) 5
(c) 6
(d) 7

Solution: c)

Technique 1:

You can check all the routes manually and count the total number.

Technique 2:

Avoid technique 1 if the diagram has more boxes. Use logic.

You can more from A to B in the given manner from point A node in two ways (right or downward). In each way there are 3 ways to go to B. Hence total 3+3 = 6.

Technique 3:

Use permutation & combination.

Consider a p x q rectangular grid with top left corner A and bottom right corner B. The number of distinct paths available to traverse from A to B moving downward and rightward is $^{p+q}C_p$ or $^{p+q}C_q$.

We have a 2 X 2 rectangular grid in this case. So, the number of paths to traverse from A to B = $^4C_2$ = 6.

26. Consider the following figure and answer the item that follow:
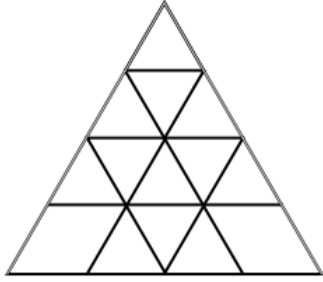
What is total number of triangles in the above grid ?

(a) 27
(b) 26
(c) 23
(d) 22

Solution: c)

The triangles given are equilateral triangles of different lengths 1,2,3 and 4 units.

The number of triangles of 1 unit length = 1 + 3 + 5 + 3 = 12

The number of triangles of length 2 units = 1 + 2 + 3 = 6. Plus there is one inverted triangle of length 2 units. So the number of triangles of length 2 units = 7

The number of triangles of length 3 units = 1 + 2 = 3

The number of triangles of length 4 units = 1

So, the total number of triangles = 12 + 7 + 3 + 1 = 23

Directions for the following 4 (four) items:

Read the following passage and answer the items that follow. Your answers to these items should be based on the passage only.

Passage

A country under foreign domination seeks escape from the present in dreams of a vanished age, and finds consolation in visions of past greatness. That is a foolish and dangerous pastime in which many of us indulge. An equally questionable practice for us in India is to imagine that we are still spiritually great though we have come down, in the world in other respects. Spiritual or any other greatness cannot be founded on lack of freedom and opportunity, or on starvation and misery. Many western writers have encouraged that notion that Indians are other-worldly. I suppose the poor and

unfortunate in every country become to some extent other-worldly, unless they become revolutionaries, for this world is evidently not meant for them. So also subject peoples.

As a man grows to maturity he is not entirely engrossed in, or satisfied with, the external objective world. He seeks also some inner meaning, some psychological and physical satisfactions. So also with peoples and civilizations as they mature and grow adult. Every civilization and every people exhibit these parallel streams of an external life and an internal life. Where they meet or keep close to each other, there is an equilibrium and stability. When they diverge conflict arises and the crises that torture the mind and spirit.

27. The passage mentions that "this world is evidently not meant for them". It refers to people who

1. seek freedom from foreign domination.
2. live in starvation and misery.
3. become revolutionaries .

Which of the statements given above is/are correct ?

(a) 1 and 2
(b) 2 only
(c) 2 and 3
(d) 3 only

Solution: b)

Statement 1 is for countries but not in the context question asks. Statement 2 is correct. If they can not become revolutionaries, this world is not for them as per the passage.

28. Consider the following assumptions :

1. A country under foreign domination cannot indulge in spiritual pursuit.
2. Poverty is an impediment in the spiritual pursuit.
3. Subject peoples may become other-wordly.

With reference to the passage, which of the above assumptions is/are valid ?

(a) 1 and 2
(b) 2 only
(c) 2 and 3
(d) 3 only

Solution: a)

Consider this "Spiritual or any other greatness cannot be founded on lack of freedom and opportunity, or on starvation and misery". It makes statements 1 and 2 correct.

Statement 3 is vague and incorrect.

29. The passage thematically centres on

(a) the state of mind of oppressed people
(b) starvation and misery
(c) the growth of civilization
(d) body, mind and spirit of people in general

The essence of the passage is that when a person is dissatisfied with external world he seeks inner meaning. This refers directly to the state of mind of the oppressed people as in the passage. Hence, (a). Option (b) is a reason why a person is dissatisfied with the external world, so it cannot be the central idea. Option (c) is too general. In option (d), 'people in general' makes it incorrect. The passage does not talk about people in general; it talks about the oppressed people in the society.

30. According to the passage, the torture of the mind and spirit is caused

(a) by the impact of foreign domination.
(b) by the desire to escape from foreign domination and find consolation in visions of past greatness.
(c) due to lack of equilibrium between an external life and an internal life.
(d) due to one's inability to be either revolutionary or other-worldly.
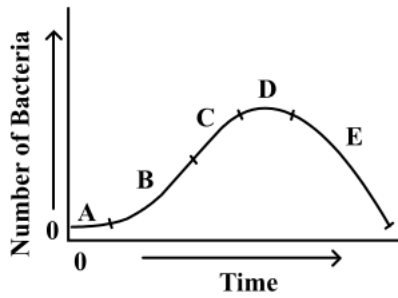
Solution: c)

Clear from the passage.

Directions for the following 3 (Three) items:

Read the passage given below, study the graph that follows and answer the three items given belwo the figure.

During a party, a person was exposed to contaminated water. A few days later, he developed fever and loose motions. He suffered for some days before going to a doctor for treatment. On starting the treatment, he soon became better and recovered completely a few days later. The following graph shows different phases of the person's disease condition as regions A, B, C, D and E of the curve.

31. Which region/regions of the curve correspond/corresponds to incubation phase of the infection ?

(a) A only
(b) B only
(c) Band C
(d) No part of the curve indicates the incubation phase

Solution: a)

Incubation means where the bacteria just started multiplying after insertion in the body. Thus A.

32. Which region of the curve indicates that the person began showing the symptoms of infection ?

(a) A
(b) B
(c) C
(d) D

Solution: b)

Clear from the diagram.

33. Which region of the curve indicates that the treatment yielded effective relief?

(a) C
(b) D
(c) E
(d) The curve does not indicate the treatment

Solution: c)

Relief is when the number of bacteria starts going down.

34. There are four routes to travel from city A to city B and six routes from city B to city C. How many routes are possible to travel from the city A to city C?

(a) 24
(b) 12
(c) 10
(d) 8
Solution: a)

Simple arithmetic. For every one route, you will have six routes to take. So, total number of routes is 6 X 4 = 24

35. A contract on construction job specifies a penalty for delay in completion of the work beyond a certain date is as follows: Rs. 200 for the first day, Rs. 250 for the second day, Rs. 300 for the third day etc., the penalty for each succeeding day being 50 more than that of the preceding day. How much penalty should the contractor pay if he delays the work by 10 days ?

(a) Rs. 4950
(b) Rs. 4250
(c) Rs. 3600
(d) Rs. 650

Solution: b)

The penalty for delay on first day is 200, for second day is 250, for third day is 300 and so on.

The penalties form an arithmetic progression (AP) with a common difference of 50 and first element (a) as 200.

The sum of penalties for 10 days is thus same as the sum of numbers in the A.P. with n as 10.

Sum of AP (formula) = n/2 [2a + (n-1) d] = 10/2 [2 X 200 + (10-1) X 50] = 4250

**36.** Consider the figure given below and answer the items that follows:
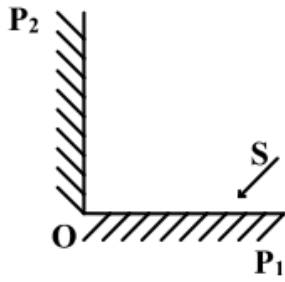
In the figure shown above, OP 1 and OP 2 are two plane mirrors kept perpendicular to each other. S is the direction of a beam of light falling on the mirror OP 1. The direction of the reflected beam of light from the mirror OP 2 will be

(a) Perpendicular to the direction S.
(b) At 45° to the direction S.
(c) Opposite and parallel to the direction S.
(d) At 60° to the direction S.

Solution: c)

Use the laws of reflection that you learnt in Science. You need not do all the arithmetic and geometry. Just visualize the rays being reflected at equal angles from OP1 and OP2, and you will know how the rays will pass from OP2. Its opposite and parallel to the direction of S.

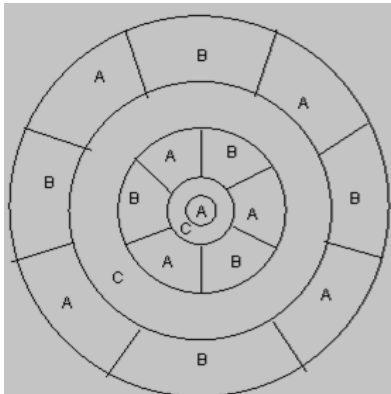**37.** Consider the following figure and answer the item that follows:
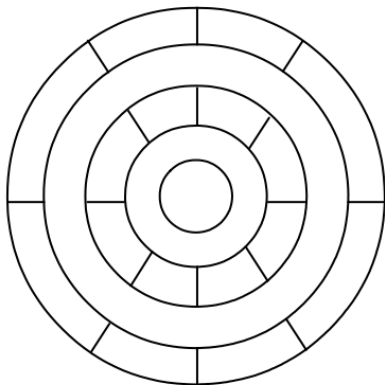
What is the minimum number of different colours required to paint the figure given above such that no two adjacent regions have the same colour ?
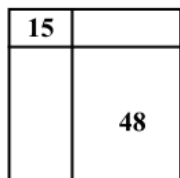(a) 3
(b) 4
(c) 5
(d) 6

Solution: a)

You can paint the figure using the colours A, B and C like this.

38. Consider the following figure and answer the items that follows:

A square is divided into four rectangles as shown above. The lengths of the sides of rectangles are natural n umbers. The areas of two rectangles are indicated in the figure. What is the length of each side of the square?
(a) 10
(b) 11
(c) 15
(d) Cannot be determined as the given data are Insufficient

Solution: b)

Area 15 units can be 15 X 1 or 5 X 3.

Area 48 units can be 48 X 1 or 24 X 2 or 16 X 3 or 12 X 4 or 8 X 6

 Since the bigger figure is a square choose a combination with the length and breadth that forms a square: So if you take 5 units (from 15 units area) + 6 units (from 48 units area) or 8 units (from 48 units area) + 3 units (from 15 units area), it is equal to a side 11 square.

39. A person has only Rs. 1 and Rs. 2 coins with her. If the total number of coins that she has is 50

and the amount of money with her is Rs. 75, then the number of Rs. 1 and Rs. 2 coins are, respectively

(a) 15 and 35
(b) 35 and 15
(e) 30 and 20
(d) 25 and 25

Solution: d)

Let the Rs. 1 and Rs. 2 coins be x and y in number respectively.

Given x + y = 50 and x + 2y = 75

Solving the above two equations, you get x = 25 and y = 25.

40. Three persons start walking together and their steps measure 40 cm, 42 cm and 45 cm respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps ?

(a) 25 m 20 cm
(b) 50 m 40 cm
(c) 75 m 60 cm
(d) 100 m 80 cm

Solution: a)

It's a simple LCM problem. Take the LCM of 40, 42 and 45 to know at what point will they find a common multiple. It is 2520 cm i.e. 25 m 20 cm.

41. If a bus travels 160 km in 4 hours and a train travels 320 km in 5 hours at uniform speeds, then what is the ratio of the distances travelled by them in one hour?

(a) 8 : 5
(b) 5 : 8
(c) 4 : 5
(d) 1 : 2

Solution: b)

Take the ratio of both the speeds. First bus = 40 kmph, so 40 Kms in one hour. Second bus = 64 kmph, so 64 kms in one hour.

Ratio = 40:64 = 5:8

42. There are 100 students in a particular class. 60% students play cricket, 30% student play football and 10% student play both the games. What is the number of students who play neither cricket nor football ?

(a) 25
(b) 20
(c) 18
(d) 15

Solution: b)

If 60% play cricket, and 30% play football then total percentage that plays both = 60 + 30 = 90%

But out of these, 10% that play both need to be subtracted as they are counted twice. So, 80% play both. Those who play neither will be 100-80 = 20%.

43. A village having a population of 4000 requires 150 liters of water per head per day. It has a tank measuring 20 m x 15 m x 6 m. The water of this tank will last for

(a) 2 days
(b) 3 days
(c) 4 days
(d) 5 days

Solution:

Total requirement = 4000 X 150 = 6,00,000 litres

Volume (capacity) of tank = L x B x H (for cuboids) = 20 X 15 X 6 = 1800 m^3

1m = 1000 litres

So, capacity = 18,00, 000

So water will last for 18,00,000/6,00,000 = 3 days.

Directions for the following 4 (four) items:
Read the follouing passage and answer the items that follow. Your answers to these items should be based on the passage only.

Passage

A species that exerts. an influence out of proportion to its abundance in an ecosystem is called a keystone species. The keystone species may influence both the species richness of communities and the flow of energy and materials through ecosystems. The sea star Pisaster the flow of energy and materials through ecosystems. The sea star Pisaster ochraceus, which lives in rocky intertidal ecosystems on the Pacific coast of North America, is also an example of a keystone species. Its preferred prey is the mussel Mytilus californianus . In the absence of sea- stars, these mussels crowd out other competitors in a broad belt of the intertidal zone. By consuming mussels, sea star creates bare spaces that are taken over by a variety of other species. A study at the University of washington demonstrated the influence of Pisaster on species richness by removing sea stars from selected parts of the intertidal zone repeatedly over a period of five years. Two major changes occured in the areas from which sea stars were removed. First, the lower edge of the 46. mussel bed extended farther down into the intertidal zone, showing that sea stars are able to eliminate mussels completely where they are covered with water most of the time. Second, and more dramatically, 28 species of animals and algae disappeared from the sea star removal zone. Eventually only Mytilus, the dominant competitor, occupied the entire substratum. Through its effect on competitive relationships, predation by Pisaster largely determines which species live in these rocky intertidal ecosystems.

44. What is the crux of the passage ?

(a) Sea star has a preferred prey.
(b) A preferred prey determines the survival of a keystone species.
(c) Keystone species ensures species diversity.
(d) Sea star is the only keystone species on the Pacific coast of North America.

Solution: c)

This has been explained with the example of the sea star and the passage concludes on the same lines.

45. With reference to the passage, consider the following statements :

1. Mussels-are generally the dominant species in intertidal ecosystems.
2. The survival of sea stars is generally determined by the abundance of mussels.

which of the statements given above is /are correct?
(a) 1 only
(b) 2 ony

(c) Both 1 and 2
(d) Neither 1 nor 2

Solution: d)

Statement 1 is incorrect as it is not mentioned in the passage. And, they would abound only in the absence of sea stars. Statement 2 is also incorrect and has been put up opposite to what the passage says.

46. Which of the following is/are implied by the passage ?

1. Mussels are always hard competitors for sea stars.
2. Sea stars of the Pacific coast have reached the climax of their evolution.
3. Sea stars constitute an important component in the energy flow in intertidal ecosystem.

Which of the statements given above is/are correct?
(a) 1 and 2
(b) 2 only
(c) 1 and 3
(d) 3 only

Solution: d)

Keystone species influence the flow of energy through ecosystems, and sea stars are a keystone species. Hence only c is true. Other statements are out of context generalizations.

47. Consider the following assumptions:

1. The food chains/food web in an ecosystem are influenced by keystone species.
2. The presence of keystone species is a specific characteristic of aquatic ecosystems.
3. If the keystone species is completely removed from an ecosystem, it will lead to the collapse of the ecosystem.

With reference to the passage, which of the above assumptions is/are valid?

(a) 1 only
(b) 2 and 3 only
(c) 1 nad 3 only

(d) 1, 2 and 3

Solution: a)

1 has been mentioned in the passage. 2 is an out of context generalization. 3 is an extreme statement. Ecosystem will suffer a loss, but may not collapse.

48. Consider the following argument:

"In, order to be a teacher one must graduate from college. All poets are poor. Some Mathematicians are poets. No college graduate is poor."

Which one of the following is not a valid conclusion regarding the above argument?
(a) Some Mathematicians are not teachers.
(b) Some teachers are not Mathematicians.
(c) Teachers are not poor.
(d) Poets are not teachers.

Solution:

Instead of using Venn diagrams and spending time, simply use logic to solve this.

Since teachers can only be college graduates and since no college graduates are poor, so C is correct. Moreover, since poets are poor, no poet can be a teacher. Also, since some mathematicians are also poets (and poor) they can't be teachers. So, A is also correct.

B can not be said with absolute certainty. Hence B is incorrect and the answer.

49. A student on her first 3 tests receives on an average score of N points. If she exceeds her previous average score by 20 points on her fourth test, then what is the average score for the first 4 tests?

(a) N + 20
(b) N + 10
(c) N + 4
(d) N + 5

Solution: d)

The average score of student in 3 tests is N points. Hence the total score = 3N points.

Given the score in fourth test = N + 20, the average score of student in four tests will be = (3N +N+20)/4 = N+5

50. In a group of persons, 70% of the persons are male and 30% of the persons are married. If two sevenths of males are married, what fraction of the females is single ?

(a) 2/7
(b) 1/3
(c) 3/7
(d) 2/3

Solution: d)

70% males, so 30% females.

If 2/7th of males are married, this means 2/7 (70 %) = 20% males are married. So, 10% females are married (out of 30% total married). So, single females will be 20% out of total 30% females. The fraction is 2/3.

51. The houses of A and B face each other on a road going north-south, A's being on the western side. A comes out of his house, turns left, travels 5 km, turns right, travels 5 km to the front of D's house. B does exactly the same and reaches the front of C's house. In this context, which one of the following statements is correct?

(a) C and D live on the same street.
(b) C's house faces south.
(c) The houses of C and D are less than 20 km apart.
d) None of the above

Solution: c)

From the arrangement, it is clearly visible that
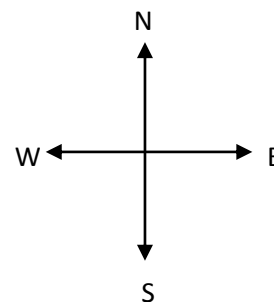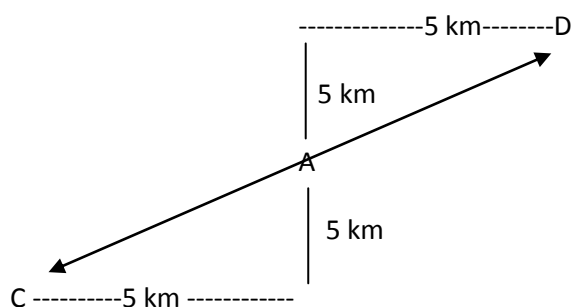
The distance between C and D, is twice the distance between C and A.

Between C and A, we use Pythagoras theorem i.e. square root of ($5^2 + 5^2$) = ($\sqrt{25 + 25}$) = $\sqrt{50}$

So, distance between C-D will $2\sqrt{50}$ = 14.12 km approx.

Directions for the following 5 (five) items:
Read the following passage and answer the items that follow. Your answers to these items should-be based on the passage only.

Passage

Now India's children have a right to receive at least eight years of education, the gnawing question is whether' it will remain 'on paper' or 'become a reality. One hardly needs a reminder that this right is different from the others enshrined in the Constitution, that the beneficiary - a six year old child cannot demand it, nor can she or he fight a legal battle when the right is denied or violated. In all cases, it is the adult society which must act on behalf of the child. In another peculiarity, where a child's right to education is denied, no compensation offered later can be adequate or relevant. This is so because childhood does not last if a legal battle fought on behalf of a child is eventually won, it may be of little use to the boy or girl because the opportunity missed at school during childhood cannot serve the same purpose later in life. This may be painfully true for girls because our society permits them only a short childhood, if at all. The Right to Education (RTE) has become law at a point in India's history when the ghastly practice of female infanticide has resurfaced in the form of foeticide. This is "symptomatic of a deeper turmoil" in society which compounding the traditional obstacles to the education of girls. "Tenacious prejudice against the intellectual potential of girls runs across our cultural diversity and the system of education has not been able to address it.

52. With reference to the passage, consider the following statements:

1. When children are denied education, adult society does not act on behalf of them.
2. Right to Education as a law cannot be enforced in the country.

Which of the statements given above is/are correct ?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
Solution: d)

When children are denied rights, the adult should act on behalf of them. Hence 1 is wrong.

And, 2 is an out of context statement.

53. According to the passage, what could be the traditional obstacles to the education of girls?

1. Inability of parents to fight a legal battle when the Right to Education is denied to their children.
2. The traditional way of thinking about girl's role in society.
3. The prejudice against the intellectual potential of girls.
4. Improper system of education.

Select the correct answer from the codes given below:

(a) 1 and 2 only
(b) 2, 3 and 4 only
(c) 1, 3 and 4 only
(d) 1, 2, 3 and 4

Solution: b)

Statement 1 is wrong as the passage clearly tells that parents fight a legal battle and even though late, there is a chance that they might win it. The last 2 sentences of the passage support statements 2, 3 and 4.

54. On the basis of the passage, consider the following statements:

1. Right to Education is a legal right and not a fundamental right.
2. For realising the goal of universal education, the education system in the country must be made identical to that of developed countries.

Which of the statements given above is/are correct?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Solution: d)

The passage mentions that it is a constitutional right in these lines – "One hardly needs a reminder that this right is different from the others enshrined in the Constitution". But we can not be sure whether it is a legal right as per the passage or fundamental right. At the same time to totally deny that is a legal right and not a fundamental right would be wrong. So since we can not draw any inference, this statement should be marked wrong.

2 is out of context generalization.

55. Which one of the following statements conveys the key message of the passage ?

(a) India has declared that education is compulsory for its children.
(b) Adult society is not keen on implementing the Right to Education.
(c) The Right to Education, particularly of a girl child, needs to be safeguarded.
(d) The system of education should be address the issue of right to education.

Solution: c)

Clearly mentioned as there has been a long discussion on girl education in the passage.

56. Which one of the following statements conveys the inference of the passage?

(a) The society has a tenacious prejudice against the intellectual potential of girls.
(b) Adults cannot be relied upon to fight on behalf of children for their Right to Education.
(c) The legal fight to get education for children is often protracted and prohibitive.
(d) There is no sufficient substitute for education received in childhood.
Solution: d)

Since (a) is mentioned in the passage, it is not an inference. Look at the keywords carefully while solving such questions.

(b) and (c) are generalizations. Hence (d) can be inferred from the discussion about child education rights from the passage.

Read the following paesage and answer (three) items that follow:

A, B, C, D and E are members of the same family. There are two fathers, two sons, two wives, three males and two females. The teacher was the, wife of a lawyer who was the son of a doctor. E is not male, neither also a wife of a professional. C is the youngest person in the family and D is the eldest. B is a male.

57. How is D related to E ?

(a) Husband
(b) Son
(c) Father
(d) Wife

Solution: a)

Clearly the family has three generations. We are putting the male first and then the female in the couple. Now, there can be 2 possibilities.

```
        D – E (Doctor)                              D (Doctor)

            |                                          |

(Lawyer)  B – A (teacher)              (Lawyer) B – A (teacher)

            |                                          |

            C                                        C – E
```

From the first arrangement, D is E's husband.

58. Who are the females in the group ?
(a) C and E
(b) C and D
(c) E and A
(d) D and E

Solution: c)

Clear from the arrangement.

59. Whose wife is the teacher?
(a) C
(b) D
(c) A
(d) B

Solution: d)

Clear from the diagram.

Read the following passage and answer the 3 (three) items that follow:

In a survey regarding a proposal measure to be introduced, 2878 person took part of which 1652 were males. 12 persons voted against the proposal which 796 were males. 1425 persons vote for the proposal. 196 females wet undecided.

60. How many females voted for the proposal ?

(a) 430
(b) 600
(c) 624
(d) 640
Solution: b)

Total number of males = 1652. Hence the number of females = 1226.

Given 796 males voted against the proposal out of 1226. Therefore 430 females voted against the proposal. We also know 196 females were undecided.

Therefore, the number of females who voted for the proposal = 1226 – 430 – 196 = 600.

61. How many males were undecided ?

(a) 31
(b) 227
(c) 426
(d) 581
Solution: a)

1425 people voted for the proposal. Hence the number of males who voted for the proposal = 1425 – 600 = 825. Therefore the number of males who were undecided = 1652 – 825 – 796 = 31

62. How many females were not in favour the proposal ?

(a) 430
(b) 496
(c) 586
(d) 1226

Solution: a)

Clear from the equations above.

63. In a queue, Mr. X is fourteenth from the front and Mr. Y is seventeenth from the end, while Mr. Z is exactly in between Mr. X and Mr. Y. If Mr. X is ahead Mr. Y and there are 48 persons in the queue, how many persons are then between Mr. X and Mr. Z ?

(a) 6
(b) 7
(c) 8
(d) 9
Solution: c)

Since X is 14th from the front, Y is 17th from the end, and also X is ahead of Y, there must be 48 – (14 + 17) = 17 persons in between X and Y.

Now, as there are equal number of people between X and Z; and Z and Y. So, the number of persons between X and Z has to be 8.

It will be like – 13 ---X ----(8)----Y----(8)-----Z

Directions for the following 9 (nine) items:
The following nine items (Questions 64 to 72) are based on three passages in English to test the comprehension of English language and therefore these items do not have Hindi version. Read each passage and answer the items that follow.

Passage-I

He walked several miles that day but could not get anything to eat or drink except some dry bread and some water, which he got from cottagers and farmers. As night fell, he slept under a haystack lying in a meadow. He felt frightened at first, for the wind blew awfully over the empty fields. He felt cold and hungry, and was feeling more lonely than he had ever felt before. He however, soon fell asleep, being much tired with his long walk. When he got up next day, he was feeling terribly hungry so he purchased a loaf of bread with a few coins that he had.

64. When the night fell, he slept

(a) in the open field
(b) under a pile of dry grass
(c) in a farmer's cottage
(d) under a tree

Solution: b)

Haystack means a pile of dry grass.

65. He soon fell asleep because

(a) he was exhausted
(b) he was all alone
(c) he had not slept for days
(d) he was very frightened
Solution: a)

"he was tired with his long walk" says all.

66. With reference to the passage, consider the following statements :

1. He was walking through the countryside,
2. The cottagers and farmers gave his enough food so that he could sleep at night without feeling hungry.
Which of the statements given above is/are correct ?

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Solution: a)

The description of the scenery and the farmers, cottages etc. indicate clearly that it is countryside.

"He felt cold and hungry" means 2 is wrong.

Passage - II

I opened the bag and packed the boots in; and then, just as I was going to close it, a horrible idea occurred to me - Had I packed my toothbrush ? I don't know how it is, but I never do know whether I've packed my toothbrush. My toothbrush is a thing that haunts me when I'm travelling, and makes my life a misery, I dream that haven't packed it, and wake up in a cold perspiration, and get out of bed and hunt for it. And, in the morning, I pack it before I have used it, and it is always the last thing I turn out of the bag; and then repack and forget it, and have to rug upstairs for it at the last moment and carry it to the railway station, wrapped up in my pocket-handkerchief.

67. When he was going to close the bag, the idea that occurred to him was

(a) unpleasant
(b) sad
(c) fantastic
(d) amusing

Solution: a)

"just as I was going to close it, a horrible idea occurred to me - Had I packed my toothbrush" – this is neither amusing or fantastic. This is also not sad as its more in the tone of unpleasantness.

68. What makes his life miserable whenever he undertakes travelling?

(a) Going to railway station
(b) Forgetting the toothbrush
(c) Packing his bag
(d) Bad dreams

Solution: b)

This is the central theme of the passage.

69. His toothbrush is finally

(a) in his bag
(b) in his bed
(c) in his handkerchief
(d) lost

Solution: a)

"and have to rug upstairs for it at the last moment and carry it to the railway station, wrapped up in my pocket-handkerchief." – this means it is in the handkerchief.

Passage-III

In spring, polar bear mothers emerge from dens with three month old cubs. The mother bear has fasted for as long as eight months but that does not stop the young from demanding full access to her remaining reserves. If there are triplets, the most persistent stands to gain an extra meal and it may have the meal at the expense of others. The smallest of the litter forfeits many meals to stronger siblings. Females are protective of their cubs but tend to ignore family rivalry over food. In 21 years of photographing polar bears, I've only once seen the smallest of triplets survive till autumn.

70. Female polar bears give birth during
(a) spring
(b) summer
(c) autumn
(d) winter

Solution: d)

"In spring, polar bear mothers emerge from dens with three month old cubs". So, three months before spring is winter.

71. Mother bear

(a) takes sides over cubs
(b) lets the cubs fend for themselves
(c) feeds only their favourites
(d) see that all cubs get an equal share

Solution: b)

"Females are protective of their cubs but tend to ignore family rivalry over food." Suggest option (b)

72. With reference to the passage, the following assumptions have been made:

1. Polar bears fast as long as eight months due to non-availability of prey.
2. Polar bears always give birth to triplets.

Which of the assumptions given above is/are valid?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Solution: d)

1 is partly true. Non-availability of prey is nowhere mentioned in the passage. Statement 2 is also incorrect. The passage says 'if there are triplets....'

Directions for the following 8 (eight) items:

Given below are eight items. Each item describes a situation and is followed by four possible responses. Indicate the response you find most appropriate. Choose only one response for each item. The responses will be evaluated based on the level of appropriateness for the given situation.

Please attempt all the items. There is no penalty for wrong answers for these eight items.

73. You have been asked to give an explanation for not attending an important official meeting. Your immediate boss who has not informed you about the meeting is now putting pressure on you not to place an allegation against him / her. You would

(a) send a written reply explaining the fact.
(b) seek an appointment with the top boss to explain the situation.
(c) admit your fault to save the situation.
(d) put the responsibility on the coordinator of the meeting for not informing.

Solution: More preferred (a); less preferred (b).

Admitting your fault would be succumbing to unjust pressure. It is not expected of a civil servant.

Putting responsibility on someone else would be unfair, wrong and irresponsible.

The other two are in line with upholding the truth and being sincere with your official responsibilities.

74. A local thug (bad element) has started illegal construction on your vacant plot. He has refused your request to vacate and threatened you of dire consequences in case you do not sell the property at a cheap price to him. You would

(a) sell the property at a cheap price to him.
(b) go to the police for necessary action.
(c) ask for help from your neighbours.
(d) negotiate with the goon to get a higher price.

Solution: More preferred (b); less preferred (d)

Selling the property at cheap price would be succumbing to pressure. It shows lack of capacity to fight for justice.

Asking for help from neighbours would not be a good idea as he is a local thug. So the neighbours may not support you.

Negotiating for a higher price (though less preferable) will ensure that you don't get a bad deal.

Willing to go to police shows that you can fight against injustice. This is a trait civil servants should have. UPSC asks such questions to test the same.

75. You have to accomplish a very important task for your headquarters within the next two days. Suddenly you meet with an accident. Your office insists that you complete the task. You would

(a) ask for an extension of deadline.
(b) inform Headquarters of your inability to finish on time.
(c) Suggest alternate person to headquarters who may do the needful.
(d) stay away till you recover.

Solution: More preferred (c); less preferred (b).

Asking for an extension is impractical as it is a very important task that has to be submitted within two days. If you inform the headquarters of your inability, they will at least assign another person. The work will not be affected.

Staying away till you recover would be abdicating official responsibilities and duty; and reflects badly on your professional values and commitment to work.

Best is (c) as it shows your professionalism towards work keeping in mind your own personal limitations.

76. You are an officer-in-charge for providing basic medical facilities to the survivors of an earthquake affected area. Despite your best possible effort, people put allegations against you for making money out of the funds given for relief. You would

(a) let an enquiry be set up to look into the matter.
(b) ask your senior to appoint some other person in your place.
(c) not pay attention to allegations.
(d) stop undertaking any initiative till the matter is resolved.

Solution: More preferred (a); less preferred (c)

Asking for someone else to be appointed would be succumbing to public pressure, which is like a daily affair in the bureaucracy.

Stopping any further initiative will affect the relief operations and is not advisable. Public interest should come first.

Letting an inquiry in the matter is a sign of highest integrity and is expected of civil servants. Integrity simple means subjecting oneself to the greatest scrutiny possible.

77. You have been made responsible to hire boats at a short notice to be used for an area under flood. On seeing the price mentioned by the boat owners you found that the lowest price was approximately three times more than the approved rate of the Government. You would

(a) reject the proposal and call for a fresh price.
(b) accept the lowest price.
(c) refer the matter to the Government and wait.
(d) threaten the boat owners about a possible cancellation of the licence.

Solution: More preferred (b); less preferred (d).

Rejecting the proposal and calling for fresh prices is a long drawn process. You do not have time as its urgent for floods.

Same problem is there with referring to the government and waiting.

Since its very urgent best would be to accept the lowers price for now since its required very urgently for relief operations. You may be dragged into controversies later, but public interest should be put first. Service should be selfless.

Threatening the boat owners might take some time, and given the urgency may not be that practical.

78. You are the officer-in-charge of a village administering distribution of vaccine in an isolated epidemic hit village, and you are left with only one vaccine. There is a requirement of that vaccine from the Gram Pradhan and also a poor villager. You are being pressurised by the Gram Pradhan to issue the vaccine to him. You would

(a) initiate the procedure to expedite the next supply without issuing the vaccine to either.
(b) arrange vaccine for the poor villager from the distributor of another area.
(c) ask both to approach a doctor and get an input about the urgency.
(d) arrange vaccine for the Gram Pradhan from the distributor of another area.

Solution: More preferred (c); less preferred (b)

Best would be to get who needs it more urgently and give it to him. But, as its an epidemic hit village, you would need the pradhan to help you in the relief efforts. So instead of saving the poor villager (even out of sympathy and duty), you should keep the lives of others in mind too.

Rejecting vaccine to either would be foolish and inhuman.

This question checks your pragmatism and empathy towards the downtrodden.

79. You have taken up a project to create night-shelters for homeless people during the winter season. Within a week of establishing the shelters, you have received complaints from the residents of the area about the increase in theft cases with a demand to remove the shelters. You would

(a) ask them to lodge a written complaint in the police station.
(b) assure residents of an enquiry into the matter.
(c) ask residents to consider the humanitarian effort made.
(d) continue with the project and ignore their complaint.

Solution: More preferred (b); less preferred (c)

A complaint in the police station may lead to the shelters being removed by police. Its the winter season. It will result in undue harassment for the poor shelterless people.

Continuing with the project ignoring the complaint would be abdicating duty and is not a sign of integrity, fairness and impartiality.

Asking them to consider the humanitarian efforts made would at least save the homeless people's lives in the winter. Then you can monitor the situation and take appropriate action.

80. You, as an administrative authority, have been approached, by the daughter-in-law of an influential person regarding harassment by her in-laws on account of insufficient dowry. Her parents are not able to approach you because of social pressures. You would

(a) call the in-laws for an explanation.
(b) counsel the lady to adjust, given such a circumstance.
(c) take action after her parents approach you.
(d) ask her to lodge complaint with the police.

Solution: More preferred (a); less preferred (d)

(d) is less preferred because the girl might not go to police because of social pressures as mentioned in the question.

Since you are an administrative authority, you cannot handle dowry cases. Best would be to assist the lady by calling the in-laws for explanation.

This would improve the faith of people in the administration; it shows capacity for justice; and sensitivity towards important social issues.