



**Synergy**  
study point

## Test Series – Prelims 2020 G. S. Paper – II

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### Subject: Comprehensive Test 4

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Time Allowed: 2 Hours

Maximum Marks: 200

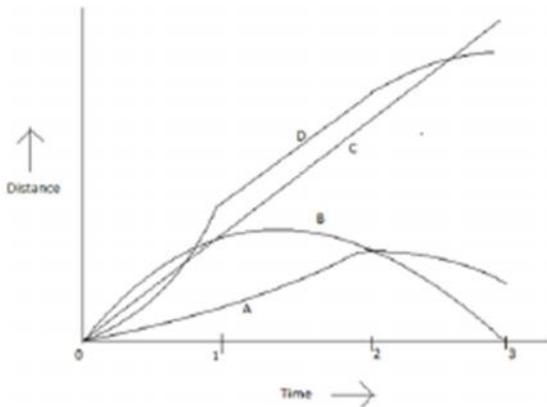
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### INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET *DOES NOT* HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. This test Booklet contains 80 items (questions). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.
3. You have to mark all your responses *ONLY* on the separate Answer Sheet provided. See directions in the Answer Sheet.
4. All items carry equal marks.
5. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions given.
6. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator only the Answer Sheet. You are permitted to take away with you the Test Booklet.
7. **Penalty for wrong answers :**  
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
  - i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third** of the marks assigned to that question will be deducted as penalty.
  - ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.

If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

- A basket contains three types of fruits. There are seven less apples than the mangoes and fifteen more apples than the bananas. If there are 55 apples, then how many fruits are there in the basket?
  - 156
  - 157
  - 155
  - 158
- During a flight, an aero plane increases its speed continuously during the first hour of the journey, then flies with a constant speed during the second hour of journey and decreases its speed continuously during third and last hour of the journey. Consider the following graph and answer the item that follows:



Which of the above plots best represents the relationship between the distance travelled by the aeroplane and time?

- A
  - B
  - C
  - D
- A district level sports competition is planned. The ratio of the number of students in two schools i.e. Delhi Public School and Central School, participating in the competition is 7:5. On the day of competition, because of some unforeseen circumstances, two students of Delhi Public School could not turn up. Which of the following could be the possible ratio of the number of students of Central School and Delhi Public School, who actually participated in the competition?
    - 1:1
    - 5:7
    - 9:4
    - Cannot be determined.

- The average of three angles, A, B and C, of a quadrilateral is  $85^\circ$ . Which of the following statements is definitely true regarding the quadrilateral?
  - The quadrilateral is a cyclic quadrilateral.
  - The fourth angle of the quadrilateral is acute.
  - The fourth angle of the quadrilateral is obtuse.
  - None of the above.
- In a certain school, 20% of students are below 8 years of age. The number of students above 8 years of age is  $\frac{2}{3}$ rd of the number of students of 8 years of age which is 48. What is the total number of students in the school?
  - 72
  - 80
  - 100
  - 150
- The first term of an Arithmetic Progression is 10. The second term is 50% more than the first term. By what percentage is the third term more than the second term?
  - 50%
  - 25%
  - 33.33%
  - None of the above
- A man plans to travel 180 km distance in his car in three hours. After travelling for two hours, his car develops a fault and the speed of the car is reduced to  $\frac{3}{5}$ th of the initial speed. What is the total time taken in the actual journey?
  - 3 hour 20 minutes
  - 4 hour 40 minutes
  - 4 hours
  - 3 hours 40 minutes
- A milkman sells milk at the rate of Rs 50 per liter. Upon investigation, it was found that the milk contains 25% water. Assuming that the cost of the milk is Rs. 48 per liter, what is the profit per liter made by the milkman?
  - Rs. 9
  - Rs. 10
  - Rs. 12
  - Rs. 14

**PASSAGE : 1**

“THE test of a first-rate intelligence is the ability to hold two opposing ideas in mind at the same time.” By this standard, the 195 countries that gathered outside Paris to negotiate a new agreement on climate change have to be counted very bright indeed. It is vital, they declared, that the world’s temperature does not climb much more than 1.5°C above pre-industrial levels; and yet they simultaneously celebrated a new climate agreement.

9. Which among the following is the most logical inference that can be made from the above passage?
- The new climate agreement did not do much to prevent 1.5°C temperature rise.
  - It is difficult to contain the temperature rise within 1.5°C.
  - Developed countries have not provided enough funds for developing countries to adapt to climate change.
  - 195 countries had sent intelligent representatives in Paris.

**DIRECTIONS for questions 10 – 11:**

**In each of the questions below are given three statements, followed by conclusions: I, II, III, IV. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.**

**10. Statements:**

Some Cats are Rats.  
All bats are tables.  
All Rats are Bats.

**Conclusion:**

I. Some Cats are bats  
II. All bats are rats  
III. All tables are cats  
IV. All bats are cats

- Only I & II follow
- Only II follows
- Only I & IV follow
- None of these

**11. Statements:**

Some ships are boats.

All boats are submarines.  
Some submarines are yatches.

**Conclusion:**

I. Some yatches are boats.  
II. Some submarines are boats.  
III. Some submarines are ships.  
IV. Some yatches are ships

- All follow
- Only II and III follow
- Only III follows
- Only IV follows

**Read the following passage and answer questions in the context of the passage**

**PASSAGE : 2**

Two objects exert a force of attraction on one another known as "gravity." Sir Isaac Newton quantified the gravity between two objects when he formulated his three laws of motion. The force tugging between two bodies depends on how massive each one is and how far apart the two lie. Even as the center of the Earth is pulling you toward it (keeping you firmly lodged on the ground), your center of mass is pulling back at the Earth. But the more massive body barely feels the tug from you, while with your much smaller mass you find yourself firmly rooted thanks to that same force. Yet Newton’s laws assume that gravity is an innate force of an object that can act over a distance.

**12. Which of the following statements is true?**

- Newton predicted the existence of gravity
- Newton said gravity is dependent on the size of the object
- Newton said that gravity is inversely proportional to the distance between the two objects
- None of the above

**13. What is the contextual meaning of the word 'innate'?**

- Inborn
- born in the mind
- instinctive
- inherent

**Read the following passage and answer questions in the context of the passage**

**PASSAGE : 3**

Albert Einstein, in his theory of special relativity, determined that the laws of physics are the same for all non-accelerating observers, and he showed that the speed of light within a vacuum is the same no matter the speed at which an observer travels. As a result, he found that space and time were interwoven into a single continuum known as space-time. Events that occur at the same time for one observer could occur at different times for another.

14. Which of the following conclusions can be drawn based on the contents of the passage?
- Astrology the art of visualizing the future is possible, as the astrologer is merely able to view the different timelines
  - Astrology the art of visualizing the future is possible, as the astrologer is merely able to view the future at the same time as present, which an ordinary person cannot
  - Astrology the art of visualizing the future is possible, as the astrologer is in a different plane than the ordinary person
  - None of the above
15. Based on the passage what can be said about space and time
- they are dependent variable
  - they are independent variable
  - they run parallel
  - they are one and the same

**Read the following passage and answer questions in the context of the passage**

**PASSAGE : 4**

Einstein realized that massive objects caused a distortion in space-time. Imagine setting a large body in the center of a trampoline. The body would press down into the fabric, causing it to dimple. A marble rolled around the edge would spiral inward toward the body, pulled in much the same way that the gravity of a planet pulls at rocks in space

16. What is conclusion that can be drawn from the passage
- Einstein found a new theory for gravity
  - Einstein understood gravity differently
  - Einstein explained gravity through the trampoline experiment
  - Einstein challenged Newton's understanding of gravity

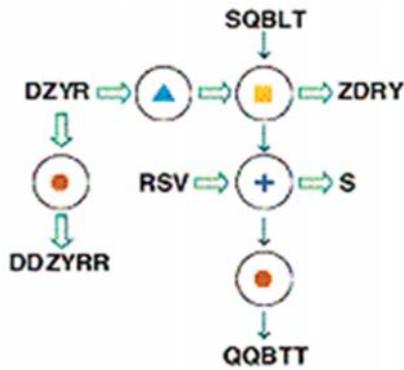
**Read the following passage and answer questions in the context of the passage**

**PASSAGE : 5**

The electromagnetic radiation of an object is stretched out slightly inside a gravitational field. Think of the sound waves that emanate from a siren on an emergency vehicle; as the vehicle moves toward an observer, sound waves are compressed, but as it moves away, they are stretched out, or redshifted. Known as the Doppler Effect, the same phenomena occurs with waves of light at all frequencies. In 1959, two physicists, Robert Pound and Glen Rebka, shot gamma-rays of radioactive iron up the side of a tower at Harvard University and found them to be minutely less than their natural frequency due to distortions caused by gravity.

17. What is the relation between being redshifted and Doppler effect
- They are analogous
  - redshifted is for electromagnetic waves, Doppler is for light
  - Rebka verified redshifting and not Doppler
  - Rebka verified Doppler and not redshifting
18. Rebka's experiment proved that
- Gravity involves movement
  - Gravity exists
  - Gamma ray radiation has natural frequency
  - Doppler effect exists
19. If A + B means A is the brother of B; A x B means A is the son of B; and A % B means B is the daughter of A then which of the following means M is the maternal uncle of N?
- M + O x N
  - M % O x N + P
  - M + O % N
  - None of these
20. In a class, 3/5 of the students are girls and rest are boys. If 2/9 of the girls and 1/4 of the boys are absent, what part of the total number of students is present?
- 17/25
  - 18/49
  - 23/30
  - 23/36

21. Study the following diagram. Select the correct answer.



- (a) RDDB
- (b) RRDBB
- (c) RDDBBB
- (d) RRDDBB

22.

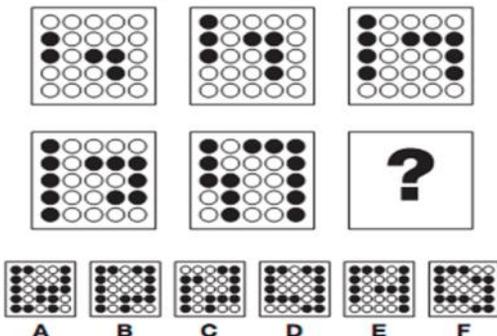
Which number replaces the question mark?

6	EJI	3
M F K		D P G
9	NRG	?

- (a) 12
- (b) 16
- (c) 18
- (d) 23

23.

Which grid replaces the question mark?

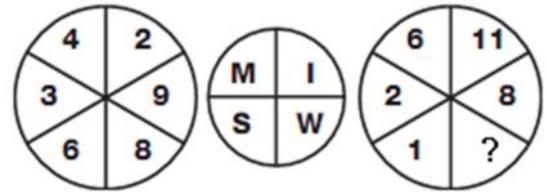


- (a) A
- (b) C
- (c) E

(d) F

24.

Which number replaces the question mark?



- (a) 6
- (b) 8
- (c) 4
- (d) 3

25. A boatman goes 2 km against the current of the stream in 1 hour and goes 1 km along the current in 10 minutes. How long will it take to go 5 km in stationary water?

- (a) 40 minutes
- (b) 1 hour
- (c) 1 hr 15 min
- (d) 1 hr 30 min

26. A 270 metres long train running at the speed of 120 kmph crosses another train running in opposite direction at the speed of 80 kmph in 9 seconds. What is the length of the other train?

- (a) 230 m
- (b) 240 m
- (c) 260 m
- (d) 320 m

Read the following passage and answer questions in context of the passage

**PASSAGE : 6**

In the Arctic, it is not just a reduction in the extent of sea ice, but its thickness and age. Less ice means less reflective surface meaning more rapid melting. The rapid reduction exceeds even scientific forecasts. Bright white ice reflects sunlight. When it is replaced by darker water, more heat is absorbed. This accelerates ice melt and heating of surface air inland, with resultant loss of tundra. Less sea ice leads to changes in seawater temperature and salinity, leading to changes in primary productivity and species composition of plankton and fish, as well as large-scale changes in ocean circulation, affecting biodiversity well beyond the Arctic.

27. Which among the following is the **most logical and rational inference** that can be made from the above passage?

- (a) Artic melt will eventually lead to collapse of global biodiversity systems.
- (b) Melting of Arctic ice is an example of positive feedback wherein melting accelerates further melting.
- (c) The most important threats to mankind will begin as soon as the Arctic ice melts completely.
- (d) The repercussions of Artic melt will remain confined to the Northern hemisphere of Earth.

28. Which of the following statements are correct according to the above passage?

- 1. The author is alarmed by the melting of Arctic ice and its potential consequences.
- 2. The author believes that replacement of ice by water in Arctic may decelerate global warming.
- 3. The author is criticizing developed nations for ignoring the environment of Arctic region.

Select the correct answer using the code given below:

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

### **PASSAGE : 7**

Moon may have been created about 4.47 billion years ago, according to a new study of meteorites that provides clues to the giant collision which formed Earth and the lunar body. A giant impact between a large proto-planet and the proto-Earth formed the Moon. The timing of this giant impact, however, is uncertain, with the ages of the most ancient lunar samples returned by the Apollo astronauts still being debated.

Research indicates numerous kilometre-sized fragments from the giant impact struck main belt asteroids at much higher velocities than typical main belt collisions, heating the surface and leaving behind a permanent record of the impact event. Collisions on these asteroids in more recent times delivered these shocked remnants to Earth, which scientists have now used to date the age of the Moon. By modelling the evolution of giant impact debris over time and fitting the results to ancient impact heat signatures in stony meteorites, the team was able to infer the Moon

formed about 4.47 billion years ago, in agreement with many previous estimates. The most ancient Solar System materials found in meteorites are about one hundred million years older than this age. The impact signatures provide insights into the last stages of planet formation in the inner solar system. They can also help researchers deduce the earliest bombardment history of ancient bodies like Vesta, one of the targets of NASA's Dawn mission and a main belt asteroid whose fragments were delivered to Earth in the form of meteorites. It is even possible that tiny remnants of the Moon-forming impactor or proto Earth might still be found within meteorites that show signs of shock heating by giant impact debris.

29. Consider the following statements with respect to the passage:

- 1. Most of the previous studies had estimated the Moon's age to be more than 4.7 billion years.
- 2. A recent study suggests that Moon was formed due to a giant collision between a large proto-planet and the proto-Earth.
- 3. The timing of the collision is debated as there is no consensus among scientist about the age of the debris.

Which of the above statements is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 2 only
- (d) All the above.

30. What does „impact signature“ mean in the passage?

- (a) The most ancient Solar System materials found in meteorites.
- (b) Main belt asteroids whose fragments were delivered to Earth in the form of meteorites in the giant impact of ancient bodies like Vesta.
- (c) The shocked remnants of the collision between a large proto-planet and the proto-Earth.
- (d) The meteorites that struck main belt asteroids.

31. What is the central theme of the passage?

- (a) To prove that the giant collision occurred 4.7 billion years ago.
- (b) To discuss the recent study which might prove the exact time of moon formation.

- (c) To provide insights into the last stages of planet formation in the inner solar system.  
 (d) To show how debris of the giant collision struck main belt of asteroids at much higher velocities, leaving behind a permanent record of the impact event.

32. Pointing to a photograph, Amitabh said - "This girl is the wife of the grandson of my mother".

How is Amitabh related to the girl?

- (a) Daughter-in-law  
 (b) Grandfather  
 (c) Husband  
 (d) Father-in-law

### **PASSAGE : 8**

An anthropologist thought he would test these African children. He placed a bowl of fruit underneath a tree and told them that the first one to reach the tree could have the fruit. When he told the children to run, they all took each other's hands and ran together. They all enjoyed the fruit together. This is the African concept of Ubuntu. In my opinion, it is also why Africa is preyed upon by the vultures untamed and let loose by other cultures. When asked why they didn't run the course alone, they answered, Ubuntu! How can we be happy when others are sad? Ubuntu in xhosa is roughly translated, "i am because we are."

33. What is the social message conveyed through the passage?

1. Community good should come first than personal good.
2. Human race will happy when we as a society are happy.
3. We need to focus on our advancements first then the society

Which are the correct options?

- a) Only 1  
 b) Only 3  
 c) Both 1 and 2  
 d) Both 2 and 3

### **PASSAGE : 9**

India celebrated its 70th Independence Day today. But are we really free? I am not sure about it. Some of us are working day & night but are not happy. We have forgotten that Work is a part of

life not the Heart of life. Are we free? Some of us want to explore the world, experiment with challenging career moves but pressure from society is not giving us any slack. Do we have freedom of choice? Some of us are enjoying freedom and independence forgetting our old retired parents who want nothing more than our company and happiness. Is this freedom worth it? Some of us have fallen in the worst ever trap of world biggest religion which nothing but 'Consumerism. Is it ever ending? Idea behind sharing this small passage is not to judge anyone. I am no one to do that. Mahatma Gandhi always said very distinctly that nothing is right or wrong; it is the intent behind that act decides its fate. Since, we all are on different journey, idea is to just motivate ourselves to take a pause, analyse, introspect and then take a call to invest our time and energy in something which makes our soul happy and which brings sustainable satisfaction. We all know that life never stops and we can keep living someone's life forever or we can choose to act and get things back in order. As this transformation is difficult, this shift can very consciously be brought in gradual manner.

34. What seems to be the main intent of the author in the article?

- a) To spread the message of continuing the pseudo free life  
 b) To extensively propagate the ideals behind consumerism, nuclear family etc.  
 c) To motivate people to understand the actual meaning of freedom in different context  
 d) To distract the readers and confuse them about the real purpose of life and the way to live.

35. According to the author, which is the most suitable course of action?

1. We need to stop and introspect
2. We need to act and get things back in order

Which of the given statements is/are correct?

- a) Only 1  
 b) Only 2  
 c) Both 1 and 2  
 d) Neither 1 nor 2

### **PASSAGE : 10**

36. Many expect the Uttar Pradesh election to go the Bihar way — a big loss for BJP. However, the same math suggests the BJP is likely to win a comfortable majority in the state.

The person saying the above para is most likely to be a\_\_

- (a) BJP spokesperson
- (b) Psychologist
- (c) Mathematician
- (d) Political Statistician

**PASSAGE : 11**

37. They take a broad approach to understanding the many different aspects of the human experience, which we call holism. They consider the past, through archaeology, to see how human groups lived hundreds or thousands of years ago and what was important to them. They consider what makes up our biological bodies and genetics, as well as our bones, diet, and health.

Who are the 'They' in the above para?

- (a) Anthropologists
- (b) Scientists
- (c) Biostatistician
- (d) Evolutionary Biologist

38. Excluding stoppages, the speed of a bus is 54 kmph and including stoppages, it is 45 kmph. For how many minutes does the bus stop per hour?

- (a) 9
- (b) 10
- (c) 12
- (d) 20

39. Reena took a loan of Rs. 1200 with simple interest for as many years as the rate of interest. If she paid Rs. 432 as interest at the end of the loan period, what was the rate of interest?

- (a) 3.6
- (b) 6
- (c) 18
- (d) Cannot be determined

**Directions to Solve:**

**Each of the questions given below consists of a question followed by three statements. You have to study the question and the statements and decide which of the statement(s) is/are necessary to answer the question.**

40. By selling an article what is the profit percent gained?

- I. 5% discount is given on list price.
- II. If discount is not given, 20% profit is gained.
- III. The cost price of the articles is Rs. 5000.

- (a) Only I and II
- (b) Only II and III
- (c) Only I and III
- (d) All I, II and III

41. What was the percentage of discount given?  
I. 23.5% profit was earned by selling an almirah for Rs. 12,350.

- II. If there were no discount, the earned profit would have been 30%.
- III. The cost price of the almirah was Rs. 10,000.

- (a) Only I and II
- (b) Only II and III
- (c) Only I and III
- (d) None of these

42. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:

- (a) 39, 30
- (b) 41, 32
- (c) 42, 33
- (d) 43, 34

43. If 6th March, 2005 is Monday, what was the day of the week on 6th March, 2004?

- (a) Sunday
- (b) Saturday
- (c) Tuesday
- (d) Wednesday

44. The average weight of 8 person's increases by 3 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of the new person?

- (a) 76 kg
- (b) 76.5 kg
- (c) 89 kg
- (d) Data inadequate

45. A hollow iron pipe is 210 cm long and its external diameter is 8 cm. If the thickness of the pipe is 1 cm and iron weighs 8 g/cm<sup>3</sup>, then the weight of the pipe is:

- (a) 3.6 kg
- (b) 3.696 kg
- (c) 36 kg

(d) 36.9 kg

46. How many of the following numbers are divisible by 132?

264, 396, 462, 792, 968, 2178, 5184, 6336

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

### **PASSAGE : 12**

They have to, it's all part of the "game of thrones", as TV news calls it, in which there are no losers, only victors. For viewers to derive maximum pleasure from the "poll khol" (the name of ABP's satirical show) they must play along. It would be political suicide for any politician to admit defeat, that too on national TV and they don't expect you to believe them. So don't. Treat it like fake views making news in a democratic contest.

And then on Saturday morning, finally, it will be time. After a month-long build-up and a week-long countdown — "6 days to go", "5 days to go", as if all 29 states and seven UTs had voted in a general election — news anchors, reporters and analysts will rush to the studios at unreasonably early hours — haul yourself out also — to calculate the results from the early voting leads.

The game will now shift to the news channels: Who will be "fast & furious", sorry, "fast & first" with "accurate numbers" (CNN News 18)? Who will have the "the sharpest insights" (Times Now)? Who will have the "Best Election Team" (India Today)? Which will be "your election destination" (India Today): Will it be "the channel for elections" (NDTV 24x7)? Who will have the biggest team — CNN News claims "250 reporters, 690 constituencies" — a mathematical puzzle! And above all, who will be the "first" to "call" a result, correctly? Ay, there's the rub, there's the crown they're vying for. Advise you to sit back, lie back (it's Saturday) and enjoy.

47. What best describes the author's attitude?

- (a) sarcastic
- (b) critical
- (c) bashful
- (d) applauding

48. Which of the following is implied by the author?

- (a) Politicians are liars
- (b) News channels are giving excess importance to the elections
- (c) Exit polls are wrong
- (d) One channel will be the fastest to report the results

49. Mathematical puzzle is a?

- (a) Statistical comment
- (b) Sneering comment
- (c) Commending comment
- (d) Appreciative comment

### **PASSAGE : 13**

50. The attainment of individual and organisational goals is mutually interdependent and linked by a common denominator - employee work motivation. Organisational members are motivated to satisfy their personal goals, and they contribute their efforts to the attainment of organisational objectives as means of achieving these personal goals.

The passage best supports the statement that motivation -

- (a) Encourages an individual to give priority to personal goals over organisational goals.
- (b) Is crucial for the survival of an individual and organisation.
- (c) Is the product of an individual's physical and mental energy.
- (d) Is the external force which induces an individual to contribute his efforts.

51. Here are some words translated from an artificial language.

*gorblflur* means car belt

*pixngorbl* means ceiling car

*arthtusl* means tile wheel

Which word could mean "car wheel"?

- (a) *gorbltusl*
- (b) *flurgorbl*
- (c) *arthflur*
- (d) *gorbltusl*

**In each question below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable**

**doubt from the information given in the statement.**

52. **Statements:** Prime age school-going children in urban India have now become avid as well as more regular viewers of television, even in households without a TV. As a result there has been an alarming decline in the extent of readership of newspapers.

**Conclusions:**

I. Method of increasing the readership of newspapers should be devised.

II. A team of experts should be sent to other countries to study the impact of TV. on the readership of newspapers.

- (a) Only conclusion I follows
- (b) Only conclusion II follows
- (c) Either I or II follows
- (d) Neither I nor II follows

53. **Statements:** In Japan, the incidence of stomach cancer is very high, while that of bowel cancer is very low. But Japanese immigrate to Hawaii, this is reversed - the rate of bowel cancer increases but the rate of stomach cancer is reduced in the next generation. All this is related to nutrition - the diets of Japanese in Hawaii are different than those in Japan.

**Conclusions:**

I. The same diet as in Hawaii should be propagated in Japan also.

II. Bowel cancer is less severe than stomach cancer.

- (a) Only conclusion I follows
- (b) Only conclusion II follows
- (c) Either I or II follows
- (d) Neither I nor II follows

**Answer Questions with context to information provided mark the most appropriate answer**

Rachana housing society is a six floored building, with ground floor numbered one, and there is only one flat per floor. These flats are owned by Anjali, Bina, Chitra, Devika, Nisha and Sayali.

Anjali lives on an even numbered floor. There are two floors between the floors on which Devaki and Sayali live. Sayali has to go up the stairs if she has to meet Devika. Bina does not live on an

odd numbered floor. Chitra does not live on any of the floors below Sayali's floor. Nisha does not live on a floor immediately above or immediately below the floor on which Bina lives.

54. Who amongst the following live on the floors exactly between Devika and Sayali ?

- (a) Nisha, Bina
- (b) Chitra, Bina
- (c) Nisha, Chitra
- (d) Anjali, Nisha

55. On which of the following floors does Bina live?

- (a) 6th
- (b) 4th
- (c) 2nd
- (d) 5th

56. Who lives on even numbered floors?

- (a) Chitra
- (b) Nisha
- (c) Anjali
- (d) Anjali and Sayali

**PASSAGE : 14**

Status-quo, the state most of us live in. Although this is a state hardly anyone really loves to be in but in reality remotely anyone tries to come out of it. The change in status quo can be change in our current jobs, it can be change in our relationship status, it can be trying out a start-up idea or it can simply be change in our routine. But then what stops us to take this simple yet so difficult step or I can even say the most difficult step of our life? The general arguments shared openly are family responsibilities, loans to repay, fear of losing someone etc. All are valid but petite reasons. The sole reason is FEAR. What if I fail, what will my friends, neighbours, parents' friends will say. My goodwill will reduce. I will no longer be the sought for. In this case, these are completely invalid points. The sad reality is apart from close friends & family nobody cares what we do. As far as friends & families are concerned, they don't love us for what we do, but they love us for who we are. So, even if we fail miserably in our endeavour, they will still be there to extend love and support. Their equation of relationship is just based on variables like love, intention etc. nothing else.

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

1. Most of the people maintaining status quo is not happy or satisfied in their life.
2. Once we overcome our fear, the possibility of failing in our endeavours is almost zero. So, everyone must go for it.

Which of the above is/are valid assumption/assumptions?

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

58. According to the passage, which is the most suitable way of life style?

1. Maintain status-quo as new things might not work out thereby inviting difficult situations.
2. Try out different things in which you really believe in even if it might be a difficult ride.
3. Go for each and every new & exciting idea that comes to our mind without giving it a thorough thought.

Select the correct answer using the codes below:

- a) 1 only
- b) 2 only
- c) 3 only
- d) Both 2 and 3

### **PASSAGE : 15**

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 Ochraceus*, which lives in rocky intertidal ecosystems on the Pacific coast of North America, is 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 occurred in the areas from which sea stars were removed. First, the

lower edge of the 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.

59. 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.

60. 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 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

### **PASSAGE : 16**

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.

61. 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

**Answer Questions with context to information provided mark the most appropriate answer**

Zaheer, Varun, Tina, Steven, Paresh, Naved, and Leena are friends by virtue of living in the same colony. They also went to one of the following colleges, Fergusson, Garware and Wadia. Atleast two went to same college . however each one is an unique profession, one of following Doctor, Fashion designing, Engineering, Business, Acting, Teaching and architecture  
 Tina is an architect and studied in Garware College  
 Paresh is not a businessman.  
 Only Leena amongst the seven friends studied in Fergusson College along with Paresh  
 Naved is an engineer and he did not study in Garware College  
 Varun is an actor and went to a different college than Naved  
 Zaheer did not study in Wadia college  
 Those who studied in Fergusson are neither Fashion Designers nor teachers.  
 None of those studied in Garware is a teacher.

62. Who amongst the following have studied in Wadia College?
- (a) Tina and Naved
  - (b) Paresh and Steven
  - (c) Zaheer and Leena
  - (d) Steven and Naved
63. Which of the following are alumni of Garware College?
- (a) Zaheer , Varun and Tina
  - (b) Zaheer, Tina and Leena
  - (c) Zaheer, Varun and Naved
  - (d) None of the Above
64. What Naved's Profession?
- (a) Engineering
  - (b) Business
  - (c) Acting
  - (d) None of the Above
65. Who is the doctor in the group?
- (a) Paresh
  - (b) Naved
  - (c) Tina
  - (d) None of the Above

66. What is Zaheer's Profession?

- (a) Teaching
- (b) Fashion Designing
- (c) Business
- (d) None of these

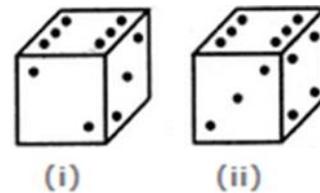
67. The Premises, All people are rich, Some rich are healthy, All healthy are Nice, will yield which conclusion

- (a) Some people are not healthy
- (b) Some rich are Nice
- (c) Some people are not Nice
- (d) Some people are healthy

68. The Premises, No tall is dwarf, All dwarfs are short, Some dwarfs run long distance, Some Tall run long distance

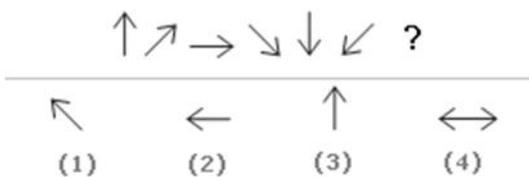
- (a) All tall are short
- (b) Some dwarfs are tall
- (c) Some short run long distance
- (d) Some short are not tall

69. Two positions of a dice with 1 to 6 dots on its sides are shown below. If the dice is resting on the side with three dots, what will be number of dots on the side at the top?



- (a) 1 or 5
- (b) 2
- (c) 3
- (d) 5

70.



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

71. Find the number of triangles in the given figure:



- (a) 18  
(b) 20  
(c) 24  
(d) 27
72. There are two examinations rooms A and B. If 100 students are sent from A to B, then the number of students in each room is the same. If 200 candidates are sent from B to A, then the number of students in A is double the number of students in B. The number of students in room A is:  
(a) 200  
(b) 800  
(c) 1000  
(d) 2000
73. Given that  $10^{0.48} = x$ ,  $10^{0.70} = y$  and  $x^z = y^2$ , then the value of z is close to:  
(a) 1.45  
(b) 1.88  
(c) 2.9  
(d) 3.7
74. Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5?  
(a)  $1/2$   
(b)  $2/5$   
(c)  $8/15$   
(d)  $9/20$
75. How many 3-digit numbers can be formed from the digits 2, 3, 5, 6, 7 and 9, which are divisible by 5 and none of the digits is repeated?  
(a) 5  
(b) 10  
(c) 15  
(d) 20
76. The length of a rectangle is halved, while its breadth is tripled. What is the percentage change in area?  
(a) 25% increase  
(b) 50% increase  
(c) 50% decrease  
(d) 75% decrease
77. If 6 men and 8 boys can do a piece of work in 10 days while 26 men and 48 boys can do the same in 2 days, the time taken by 15 men and 20 boys in doing the same type of work will be:  
(a) 4 days  
(b) 5 days  
(c) 6 days  
(d) 7 days
78. 25kg of dal costing 140 Rs is mixed with 10kg of dal costing 147 Rs. What is the cost price of the mixture?  
(a) 139  
(b) 142  
(c) 145  
(d) 148
- Read the following premises and determine which conclusions are valid**
79. All humans have a capacity of moral reasoning within them, and for betterment of humanity all capacities given to humans should be used, it follows that \_\_\_  
(a) All humans are moral  
(b) All humans should use moral reasoning  
(c) Those improving humanity use moral reasoning  
(d) Some humans are using moral reasoning
80. Investigations are full of mistakes by Police and prosecutors, and getting death sentence is very harsh for such mistakes  
(a) Investigations leading to death sentence are harsh  
(b) Death sentence should not be given  
(c) Investigation mistakes are very common  
(d) Police are prosecutors behaving harshly by demanding death sentence

