

IPM Scholarship Test

Name: _____

Date: _____

INSTRUCTIONS

- 1. DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO.**
- Fill in the information required on the answer sheet. Your test may not be evaluated if the required details are not entered on the answer sheet.
- This examination consists of three sections: Section I, II and III. Section I has 20 questions based on Quantitative Aptitude. Section II has 20 questions based on Verbal Ability. Section III has 10 questions based on Data Interpretation & Logical Reasoning.**
- Do not seek clarification on any item in the test booklet from the test invigilator or the centre supervisor. Use your best judgment.**
- The time for completing the three sections is 60 minutes.**
- All questions carry **EQUAL** marks. For every correct answer **THREE MARKS** will be awarded. **ONE MARK** will be deducted for each incorrect answer.
- Aim at securing maximum scores in each section.**
- In attempting this test speed is the essence. It is suggested that you should not get stuck in any of the questions.
- Use of any calculating device is prohibited.
- Write all your answers only on the answer sheet.
- Use only BLUE OR BLACK BALL-POINT PEN for writing answers. Do not use gel pens or ink pens.**
- Failure to follow instructions and examination norms will lead to disqualification.

To open the test booklet, insert a pen beneath this page and tear open along the right side of the test booklet as indicated by the arrow at the bottom of the page.

PLEASE WAIT FOR THE SIGNAL TO OPEN THE TEST BOOKLET.

Best of Luck



Open from this side



- If 5 boys or 4 men can paint a wall in 20 days. How much time will 6 boys and 3 men take to paint the wall?
(a) 9 days (b) 10.26 days (c) 11.75 days (d) None of these
- If only 4 birds perch on each branch of a tree, then 2 birds do not get space to perch. If 5 birds perch on each branch, then 2 branches are left unoccupied. How many branches and how many birds are there?
(a) 12, 50 (b) 10, 48 (c) 14, 48 (d) 12, 48
- How many bricks, each measuring 25 cm x 11.25 cm x 6 cm, will be needed to build a wall 8 m x 6 m x 22.5 cm ?
(a) 5600 (b) 6000 (c) 6400 (d) 7200
- In a city, three daily newspapers X, Y and Z are published. 42% of the people in that city read X, 51% read Y and 68% read Z; 30% read X and B, 28% read B and C, 36% read X and Z; 8% do not read any of the three newspapers. The percentage of persons who read all the three papers is
(a) 18% (b) 25% (c) 20% (d) None of these
- A 270 metres long train running at the speed of 120 kmph crosses another train running in opposite directions 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
- A contractor undertakes to build a wall in 50 days. He employs 50 people for the same. However after 25 days he finds that only 40% of the work is complete. How many more man need to be employed to complete the work in time ?
(a) 25 (b) 30 (c) 35 (d) 20
- Two vessels A and B contain milk and water mixed in the ratio 5 : 3 and 2 : 3. When these mixtures are mixed to form a new mixture containing half milk and half water, they must be taken in the ratio
(a) 2 : 5 (b) 3 : 5 (c) 4 : 5 (d) 7 : 3
- I sell my radio for Rs 480 and thereby lose 20%. Find the cost price.
(a) Rs 500 (b) Rs 600 (c) Rs 650 (d) Rs 700
- $\frac{38 \times 38 \times 38 + 34 \times 34 \times 34 + 28 \times 28 \times 28 - 38 \times 34 \times 84}{38 \times 38 + 34 \times 34 + 28 \times 28 - 38 \times 34 - 34 \times 28 - 38 \times 28}$ is equal to :
(a) 24 (b) 32 (c) 44 (d) 100
- The least number having four digits which is a perfect square is
(a) 1004 (b) 1016 (c) 1036 (d) None of these
- A, B and C start at the same time in the same directions to run around a circular stadium A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds, all starting at the same point. After what time will they meet again at the starting point ?
(a) 26 minutes 18 seconds (b) 42 minutes 36 seconds
(c) 45 minutes (d) 46 minutes 12 seconds
- What is the remainder left after dividing $1! + 2! + 3! + \dots + 100!$ by 7?
(a) 0 (b) 5 (c) 21 (d) 14
- What is the remainder of the polynomial $2(x - 3)^2 + 3(x - 4)^3 + 4(x - 5)^4$ when it is divided by $(x - 6)$?
(a) 11 (b) 46 (c) 77 (d) 88
- Shamu has two types of weights, Type 1 and Type 2, having different values. All the Type 1 weights measure 7 kg each while all the Type 2 weights measure 15 kg each. In how many ways can Shamu weigh 220 kg using these two types of weights?
(a) 1 (b) 2 (c) 3 (d) 4
- A rise of 25% in the price of groundnuts compels a person to buy 1.5 kg, of groundnuts less for Rs. 240. Then, the original price of groundnuts in Rs./kg are respectively
(a) 32 (b) 36 (c) 40 (d) 48
- In the following figure, ABCD is a cyclic quadrilateral. CD is extended to F such that $\angle BFC = 30^\circ$. BF intersects the circumcircle at point E. If $\angle BAC = 50^\circ$, then what is the value of $\angle DAE$?
(a) 15° (b) 17.5° (c) 20° (d) 22.5°

17. A train of 49 carriages, each of 5 m length with an engine of 55 m length is running at a speed of 25 km/hr. The time within which the train will cross the bridge measuring 12.2 km in length is
(a) 20 min (b) 30 min (c) 12 min (d) 18 min
18. Two trains start at the same time, one from A to B and the other from B to A. If they arrive at B and A respectively 5 hr and 20 hrs after they passed each other, then what is the ratio of speeds of the train starting from A and that of the other starting from B?
(a) 7 : 4 (b) 2 : 1 (c) 8 : 5 (d) 5 : 3
19. What is the area of the largest regular octagon (in cm²) that can be drawn inside a square of size 4 cm?
(a) $32(\sqrt{2} + 1)$ (b) $16(\sqrt{2} + 1)$ (c) $32(\sqrt{2} - 1)$ (d) $16(\sqrt{2} - 1)$
20. In a class, two students weighing 46 and 52 kgs leave the class and are replaced by two students weighing 51 and 55 kgs. If the average weight of the class increases by one-fourth of a kg, then how many students are there in the class?
(a) 8 (b) 24 (c) 32 (d) Cannot be determined

SAMPLE PAPER

1. Choose the word that is most similar in meaning to the word highlighted in bold.
- The man **vehemently** denied all the charges of corruption that were leveled against him.
(a) Forcefully (b) Serenely (c) Devoutly (d) Hysterically
2. Choose the word that is most similar in meaning to the word highlighted in bold.
- The art movie I watched this evening has put me in a **pensive** mood.
(a) Confused (b) Depressed (c) Cheerful (d) Reflective

Directions for Qs. 3: The following question has a paragraph from which the last sentence has been deleted. From the given options, choose the sentence which completes the paragraph in the most appropriate way.

3. The best thing about India is that it still retains an essence of the fabulous. India, especially the southern part of it, is dotted with quaint little towns that evoke a deep sense of the surreal. One such place is Pondicherry, a tiny self governing Union Territory of Madras, on the coast of Tamil Nadu. In population and size it is an inconsequential part of India by comparison but history has set it apart. _____
(a) For, it was one of the various places that had been colonized by foreign powers.
(b) For, it is on the Eastern Coast, and historically, coastal areas have always been in the eye of the storm.
(c) For, it was once the capital of the most modest of colonial empires. French India.
(d) For, it has wonderful architecture and broad streets at right angles to each other with picturesque French names.
4. **Choose the grammatically correct sentence from the given options:**
(a) It's important for us to know had the Prime Minister received the crucial piece of information.
(b) Its important for us to know whether the Prime Minister received the crucial piece of information.
(c) Its important for us to know had the Prime Minister received the crucial piece of information.
(d) It's important for us to know whether the Prime Minister received the crucial piece of information.
5. **The following question has two sentences I and II which are to be filled with the same word. Choose the word that fits both the blanks to make them grammatically and contextually correct.**
- I. He boldly contradicted the legate's theological statements, refused to _____ anything, and appealed to a future council.
II. The court has decided to _____ Tom's parole and send him back to prison.
(a) revoke (b) hearing (c) calculate (d) synchronize
6. **Fill in the blank with a suitable word:**
- A hush descended among the gathered guests as the bride walked _____ the aisle.
(a) along (b) on (c) by (d) down
7. A word has been given and there are three ways in which the word has been used in the sentences A, B and C. Figure out the sentences in which the word has been correctly used.
- Entitle
A: The comedy show was entitled after the name of a very famous book 'Go home'.
B: Paul used his own money to buy the house, hence, he was entitled to it.
C: Daniel is entitled to his opinion as he has the right to speak his mind.
(a) Only A (b) Only C (c) Both B and C (d) Both A and C
8. My husband and I are starting _____ we should get a car for the family.
(a) think (b) thinking (c) have been thinking (d) to think
9. **Fill in the blanks:**
- I _____ to the gym _____ last week.
(a) had been going, from (b) had been going, since
(c) have been going, since (d) have been going, from

10. Choose the sentence in which the following word is incorrectly or inappropriately used:

CARRY

- (a) Arjun carried off the first prize in the painting competition.
- (b) The new recruit was asked to carry over the project.
- (c) Riya has been carrying on Raj for two years.
- (d) The team carried out extensive analysis on the product before launching it.

Directions for Qs. 11 – 15: Read the passages given below and answer the questions that follow.

Passage 1

The public distribution system, which provides food at low prices, is a subject of vital concern. There is a growing realization that though India has enough food to feed its masses two square meals a day, the monster of starvation and food insecurity continues to haunt the poor in our country.

Increasing the purchasing power of the poor through providing productive employment leading to rising income, and thus good standard of living is the ultimate objective of public policy. However, till then, there is a need to provide assured supply of food through a restructured, more efficient and decentralized public distribution system (PDS).

Although the PDS is extensive – it is one of the largest such systems in the world – it has yet to reach the rural poor and the far off place. It remains an urban phenomenon, with the majority of the rural poor still out of its reach due to lack of economic and physical access. The poorest in the cities and the migrants are left out, for they generally do not possess ration cards. The allocation of PDS supplies in big cities is larger than in rural areas. In view of such deficiencies in the system, the PDS urgently needs to be streamlined. Also, considering the large food grains production combined with food subsidy on one hand and the continuing slow starvation and dismal poverty of the rural population on the other, there is a strong case for making PDS target group oriented.

The growing salaried class is provided job security, regular income, and social security. It enjoys almost hundred percent insulation against inflation. These gains of development have not percolated down to the vast majority of our working population. If one compares only dearness allowance to the employees in public and private sector and looks at its growth in the past few years, the rising food subsidy is insignificant to the point of inequity. The food subsidy is a kind of D.A. to the poor, the self-employed and those in the unorganized sector of the economy. However, what is most unfortunate is that out of the large budget of the so called food subsidy, the major part of it is administrative cost and wastages. A small portion of the above budget goes to the real consumer and an even lesser portion to the poor who are in real need.

It is true that subsidies should not become a permanent feature, except for the destitute, disabled widows and the old. It is also true that subsidies often create a psychology of dependence and hence is habit-forming, killing the general initiative of the people. By making PDS target group oriented, not only the poorest and neediest would be reached without additional cost, but it will actually cut overall costs incurred on large cities and for better off localities. When the food and food subsidy are limited, the rural and urban poor should have the priority in the PDS supplies. The PDS should be closely linked with programmes of employment generation and nutrition improvement.

- 11. Which of the following is the main reason for insufficient supply of enough food to the poorest?
 - (a) Mismanagement of food stocks.
 - (b) Absence of proper public distribution system.
 - (c) Production of food is less than the demand.
 - (d) Government's apathy towards the poor.
- 12. What, according to the passage, is the main purpose of public policy in the long run?
 - (a) Reducing the cost of living index by increasing supplies.
 - (b) Providing enough food to all the citizens.
 - (c) Good standard of living through productive employment.
 - (d) Equalizing per capita income across the different strata of society.
- 13. Which of the following is true of public distribution system?
 - (a) It has improved its effectiveness over the years.
 - (b) It has remained effective only in the cities.
 - (c) It is unique in the world because of its effectiveness.
 - (d) It has reached the remotest corner of the country.
- 14. The word 'square' as used in the passage means
 - (a) Rich
 - (b) Sumptuous
 - (c) Sufficient
 - (d) Quality

15. Which of the following words is the same in meaning as 'power' is used in the passage?
(a) Vigour (b) Energy (c) Influence (d) Capacity

Directions for Qs. 16 – 20: Read the passages given below and answer the questions that follow.

Passage 2

The recent passage of the Bill, on the transplantation of human organs, by Parliament, is a long-overdue measure aimed at curbing widespread trafficking in organs, especially kidneys. As the only country where kidneys can be transplanted from donors unrelated to the patient, India, and notably Bombay, has gained international notoriety as the capital of the organ trade. Wealthy patients from India and abroad, unscrupulous doctors and rapacious brokers have made this a multi-crore racket in which the only loser is the impoverished donor parting with an organ for small money. The legislation strikes at such exploitative transactions by stipulating that blood relations and spouses are the only live donors from whom kidneys can be transplanted, and making the buying and selling of human organs a cognizable offence. By allowing the transport of cadaver organs, the Act not only opens new avenues in the treatment of renal failure, where the availability of donor kidneys falls far short of demand, but paves the way for liver transplants for which expertise exists in India. The statutory recognition of brain stem death, which is accepted medical practice the world over, widens the scope of cadaver transplants by making 'beating heart' cadavers another source for donor organs.

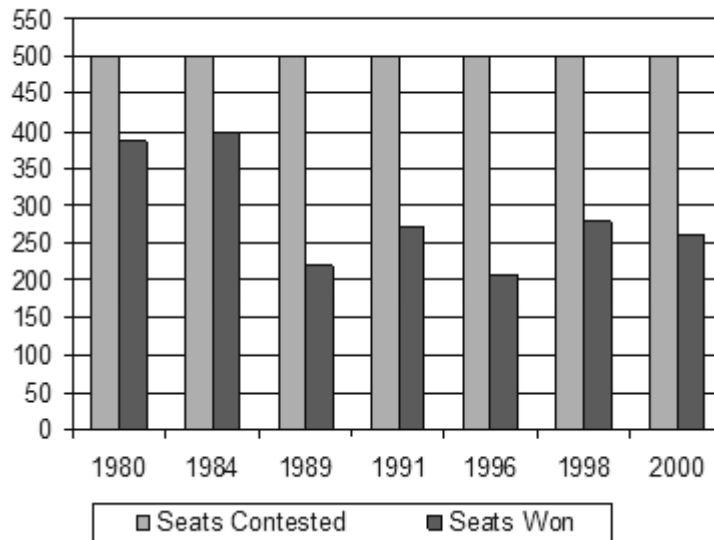
True, the mere enactment of such legislation cannot put an end to an entrenched practice that thrives on patronage from sections of the medical community, and political and public apathy. The delay of nearly two years between the introduction of the Bill and its passage and the attempts of people with vested interests to introduce certain dubious 'amendments' are an indication of what the law is up against. The effectiveness of the law will depend, therefore, on the state's determination to implement it through vigilant monitoring. The provisions for cadaveric transplants will remain on paper in the absence of public education to encourage the voluntary donation of bodies and organs overcoming religious taboos, and the setting up of institutional facilities for organ retrieval and storage. Most of all, the law rests on the realization by medical professionals that ethical and humane values must prevail over other considerations. The removal of organs from unrelated donors is almost invariably a transfer of health from the poor and weak to the rich. It cannot be defended on any ground.

16. Which of the following means 'thrives on patronage'?
- (a) Supports the practice (b) Confusion by the patron
(c) Prospers on support (d) Fails in spite of support
17. Which of the following is the meaning of the phrase 'parting with', as used in the passage?
- (a) Sacrificing (b) Fall in line
(c) Coming together (d) Partition into two
18. Which of the following is the reason for Bombay gaining international notoriety?
- (a) Human organs like kidney are smuggled here
(b) There is no legislation against kidney transplantation
(c) There are international underworld gangs operating
(d) Even patients from other countries come here for kidney transplantation donated by poor people
19. Which of the following is one of the features of the Bill?
- (a) It allows for transplant of only cadaver organs
(b) Hefty sum is to be paid to the donors
(c) Total ban on kidney transplantation
(d) Only blood relations and spouses can be the live donors
20. Which of the following would be an impediment in getting donation of cadaver organs?
- (a) Storage problems (b) Religious taboos
(c) Absence of adequate legislation (d) Effective implementation of law

Directions for Qs. 1 – 3: Refer to the following information for the following questions.

The bar chart given below provides information about the number of seats contested and number of seats won by a national party in the Indian parliamentary elections in each of the years between 1980 and 2000.

Performance of a national party in Indian Parliamentary Election



- If the total seats in the parliament were 529, how many of the elections did the party get a two-thirds majority?
(a) 3 (b) 2 (c) 4 (d) 1
- In how many of the elections did the party have to seek external support to form a government, assuming that the party sought external support whenever it did not win more than 50% of the seats in the parliament? (The parliament has 529 seats)
(a) 4 (b) 3 (c) 2 (d) None of these
- In which of the elections did the party witness the maximum % change in the number of seats it won over the previous election?
(a) 1989 (b) 1998 (c) 1991 (d) both (a) and (b)

Directions for Qs. 4 – 5: Read the information given below to answer these questions.

Roma and Mohan are a married couple having two daughters named Smita and Devika. Devika is married to a man who is the son of Madhu and Jeewan. Romila is the Daughter of Aman. Krishna who is Aman's sister is married to Sunil and has two sons Anuj and Ankur. Ankur is the grandson of Madhu and Jeewan.

- How is Krishna related to Devika?
(a) Sister-in-law (b) Sister (c) Aunt (d) None of these
- In the following question, various terms of a series are given with one term missing as shown by (?). Choose the missing term.
YEB, WFD, UHG, SKI, (?)
(a) QOL (b) TOL (c) QGL (d) QNL

Directions for Qs. 6 – 10: Answer the questions on the basis of the information given below.

- ✓ Abhijit, Binoti, Kokila, Dinesh, Tabbu and Urmila are six students. Each of them is a student of a different college, namely MACT, BEC, RKDF, Hamidia, Oriental and LNIT.
 - ✓ Each of them absents him/her self on a different day of the week from Monday to Saturday.
 - ✓ The student of BEC does not attend on Thursday.
 - ✓ Kokila is absent on Tuesday.
 - ✓ Abhijit, the student of MACT, does attend on Saturday and Wednesday.
 - ✓ Dinesh is neither a student of MACT nor of RKDF and absents himself on Friday.
 - ✓ Binoti is a student of Hamidia College; and Tabbu, of LNIT.
6. Who does not attend college on Saturday?
(a) Binoti (b) Tabbu (c) Binoti or Tabbu (d) None of these
7. Who is the student of Oriental college?
(a) Dinesh (b) Kokila (c) Urmila (d) Cannot be determined
8. Who remains absent on the day following one on which the student of Oriental college is absent?
(a) Binoti or Tabbu (b) Binoti or Urmila (c) Binoti or Kokila (d) Cannot be determined
9. Which of the following combination is correct?
(a) LNIT – Tuesday (b) RKDF – Wednesday (c) Hamidia – Thursday (d) Oriental – Friday
10. Which of the following combination is not correct?
(a) Kokila – RKDF (b) Dinesh – Oriental (c) Tabbu – LNIT (d) None of these