

KADI SARVA VISHWAVIDYALAYA
M.Sc. IT Entrance Examination
Sample Question Paper
Duration: 1 Hour

The M.Sc. IT Entrance examination consists of a single paper of ONE hour duration, which contains 50 questions carrying of total 50 marks. The question paper consists of only multiple choice objective questions. Each question will have four choices for the answer. Only one choice will be correct. Candidate has to mark the correct choice on the Answer Sheet by checking (i.e. by putting X in the box) the appropriate box against each question. In case you want to make change in the choice of the answer, put a circle covering the box which is your final answer.

$\frac{1}{4}$ mark will be deducted for each wrong answer.

Note: Candidate found guilty of any misconduct during the examination will be immediately disqualified.

Directions for questions 1 to 5: These questions are based on data sufficiency. Each problem consists of a question and statements labeled I and II. Decide whether the data given in the statements are sufficient or not to answer the questions. Mark appropriate choice (A) to (D) as follows.

Mark (A) if only one statement alone is sufficient but other is not to answer the question.

Mark (B) if either statement I or II is independently sufficient to answer the question.

Mark (C) if neither statement I nor II is sufficient to answer the question.

Mark (D) if both the statements I and II are together sufficient to answer the question.

1	A sells an article to B at a profit of 10%. B sells the same article to C and also makes a profit of 10%. How much profit did A make? I. C sells the article for Rs. 300. II. B's profit was Rs. 120.
2	A library has separate sections for its English, Urdu and Hindi books. How many books does the library have in all the 3 sections together? I. There are 1459 books in each section. II. The English section contains 500 books which is half the total number of Urdu and Hindi books put together.
3	A man spends 20 minutes in commuting to his office by bus. How far is the office from his home? I. The bus travels at the speed of 20 kmph II. The same journey by the train takes 15 minutes.
4	How many students participated in the school play? I. The ratio of boys to girls who took part in the play is 1:4 II. The school play had 20 females.
5	The areas of a circle are four times that of another circle. What is the circumference of the smaller circle? I. The circumference of the larger circle is twice that of the smaller one. II. The two circles partly overlap each other.

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Direction for question 6 to 30: Select the correct alternative from the given choices.	
6	A dishonest milkman fills up his bucket which is only $\frac{4}{5}$ full of milk with water. He removes 5 liters of the mixture from the bucket and adds equal quantity of water. If the mixture now contains 60% of milk. What is the capacity of the bucket in the liters? A. 15 B. 20 C. 25 D. 30
7	P can do a piece of work in 20 days and Q the same piece of work in 40 days. If P and Q work on alternate days, beginning with P the work is finished during the course of the ___ day when ___ is working. A. 26 th , P B. 27 th , P C. 26 th , Q D. 27 th , Q
8	Mukesh finds some torn pieces of an old calendar, which tell him that in the year 1985, there were exactly four Mondays and four Fridays in the month of October. Mukesh was born in 7 th October, 1985. On what day of the week was he born? A. Sunday B. Monday C. Friday D. Tuesday
9	A wire of length 10m is divided into two parts such that when each of the two parts is bent to form a square, the sum of the areas of the squares is 5 sq. m. What are the lengths of the two parts? A. 5, 5 B. 6, 5 C. 4, 6 D. None of these
10	p, q and r are odd numbers such that $p + q + r = 19$ and $p < q < r$. The number of possible solution sets (p, q, r) is: A. 5 B. 6 C. 7 D. None of these
11	On walking a certain distance at 80 m/min, I was 2 minutes late. However, after running at twice that speed, I was 3 minutes before me. The corresponding distance and the schedule time was: A. 1000m, 8 min B. 800m, 8 min C. 1000m, 10 min D. 800m, 10 min
12	The ratio of the ages of Angali and Smita is 2:3. After 6 years the ratio of the ages becomes 5:7. What is the present age of Smita? A. 24 years B. 30 years C. 36 years D. 18 years
13	One-fifth of the boys and one-fourth of the girls in a class exclusively joined a swimming camp. Two-thirds of boys and three-fifths of girls exclusively joined a sports camp. If the total number of boys and girls in the class is 65, how many girls joined the sports camp? A. 12 B. 4 C. 16 D. Can't be determined
14	Bucket P has thrice the capacity as Bucket Q. It takes 60 turns for the bucket P to fill the empty drum. How many turns will it take for both the buckets P and Q together to fill the empty drum? A. 30 B. 40 C. 45 D. 90

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15	The average age of the boys and the girls in a class is 10.5 years; that of the boys is 10.6 years and that of the girls is 10.1 years. if there are 60 boys in the class, how many girls are there in the class? A. 15 B. 20 C. 22 D. 25
16	x is a whole number. If the only common factors of x and x^2 are 1 and x, then x is__ . A. 1 B. A perfect square C. An odd number D. A prime number
17	A man takes 5 hours to walk to a certain place and returns by car. He would have, however, gained 3 hours if he had completed his entire journey by car. How long would they have taken to walk both ways? A. 6 hours B. 6 ½ hours C. 7 hours D. 8 hours
18	A train from Mumbai to Pune and another from Pune and another from Pune to Mumbai start at the same time, cross one another in route and reach their destination in 4 hour and 1 hour, respectively, after crossing each other. If the first train was travelling at 24 kmph, at what speed was the second train travelling? A. 12 kmph B. 48 kmph C. 60 kmph D. 72 kmph
19	A group of students volunteered to finish a work in 25 days. 10 of the students did not turn up due to illness and the work was finished in 35 days. The original number of students in the group was A. 25 B. 30 C. 35 D. 45
20	Y and X are 2-digit numbers. In the decimal system, $Y = 2(X + 1)$. In the octal system, $Y = 2X$. The unit digits of X and Y are 5 and 2 respectively. What is the value of X + Y in the decimal system? A. 45 B. 46 C. 48 D. Cannot be determined
21	Dashing Bhaskar can stuff valentine cards into envelopes at a rate of 45 envelopes per minute while Dynamic Lajwanti takes 1.5 min to stuff the same number. Working together, how much time will they take to stuff 300 envelopes? A. 3 min B. 3.5 min C. 3.75 min D. 4 min
22	If n is an integer between 0 and 100, then any of the following could be $3n + 3$ except A. 300 B. 297 C. 208 D. 63
23	A company manufactures two products X and Y. One unit of X requires 3 units of material A and 2 units of material B while one unit of Y requires 2 units of material A and 5 units of material B. If 25 units of each product were to be produced, calculate the requirement of material B. A. 175 B. 125 C. 150 D. none of these
24	A train leaves from Meerut at 7 a.m. and reaches Delhi at 11 a.m. Another train leaves from Delhi at 9 a.m. and reaches Meerut at 12.30 p.m. At what time do the two trains cross each other? A. 9.56 am B. 10.36 am C. 10.56 am D. 11 am

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25	There are 19 identical red balls and one black ball. In a green jar 10 balls are put and the remaining 10 balls are put in a yellow jar. What is the probability of the black ball being in the yellow jar? A. $\frac{9}{19}$ B. $\frac{1}{20}$ C. $\frac{1}{19}$ D. $\frac{1}{2}$
26	The sum of the total strengths of English, Mathematics, and Physics classes is 1300. 470 students study only English, 295 studies only Mathematics and 175 studies only Physics. 105 students study exactly two subjects. How many students study all the subjects? A. 350 B. 300 C. 255 D. 250
27	A man spends Rs. 81 in buying some socks and ties. The socks cost Rs. 7 each and ties cost Rs.3 each. What is the ratio of socks to ties when the maximum number of socks is purchased such that no extra rupee is given to the shopkeeper? A. 3:2 B. 4:1 C. 5:2 D. 4:3
28	When a couple got married 10 years ago, their ages were in the ratio of 5 : 4 Today, the husband is older than his wife by one sixth of her age. What was the age of wife at the time of marriage? A. 20 B. 24 C. 25 D. None of the above
29	Which one of the following sets of lengths of sides does not relate to that of a right angled triangle: A. 3, 4, 5 B. 5, 12, 13 C. 7, 24, 25 D. 9, 12, 16
30	A train crosses two bridges of length 500 m and 280 m in 35 seconds and 24 seconds respectively. Find the length of the train. A. 200 B. 250 C. 300 D. None of the above

Direction for questions 31 to 35: fill in the blanks with appropriate choices.

31	Because of his excellent _____ skills, he could mesmerize the crowd with the power of his speech. A. Loquacious B. Convincing C. Presentation D. Oratory
32	The patriot was given a tumultuous welcome _____ his countrymen. A. With B. From C. Among D. By
33	There is no time like the _____ to start thinking about owning a house. A. Current B. Past C. Present D. Future
34	Practice will _____ pay its dividends. A. Finally B. Eventually C. Sooner D. Later
35	When certain kind of monkeys are _____, they act just as human beings. A. Domesticated B. Pet C. Beaten D. Flattered

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Direction for questions 36 and 37: in each of the following questions find the word pair that is related to the same way as the word pair provided.

36	TRIANGLE: HEXAGON A. cone : sphere B. rectangle : octagon C. pentagon : heptagon D. angle : quadrilateral
37	SOUP : LIQUID A. water : thirst B. book : knowledge C. Oxygen : gas D. Writer : publisher

Direction for questions 38 and 50: Select the correct alternative from the given choices.

38	How many distinct ASCII codes are there? A. 64 B. 96 C. 128 D. 256
39	A _____ represent approximately one billion memory locations. A. Kilobyte B. Megabyte C. Gigabyte D. Terabyte
40	_____ software allows users to perform calculations on rows and columns of data. A. Word processing B. Presentation graphics C. Database Management Systems D. None of these
41	A process known as _____ is used by large retailers to study trends. A. Data Mining B. Data Selection C. POS D. Data Conversion
42	_____ terminals (formerly known as cash registers) are often connected to complex inventory and sales computer systems. A. Data B. Point-of-Sale (POS) C. Sales D. Query
43	Which of the following is not an index type in Oracle RDBMS? A. Bitmap index B. Functional index C. B-Tree index D. Primary index

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44	The operating system does all of the following Except: A. Provide a way for the user to interact with the computer. B. Manage the central processing unit (CPU). C. Manage memory and storage. D. Enable users to perform a specific task such as document editing.
45	_____ is the ability of an operating system to control the activities of multiple programs at the same time. A. Multitasking B. Streamlining C. Multiuser D. Simulcasting
46	The unique signal, generated by a device, that tells the operating system that it is in need of immediate attention is called an: A. Action B. Event C. Interrupt D. Activity
47	Virtual memory is typically located: A. On a floppy disk B. In the CPU C. In a RAM D. On the hard drive
48	The blocks of code, included in the operating system, that software applications interact with are known as A. Application programming interfaces (APIs) B. Device drivers C. Bootstrap loaders D. Software libraries
49	The _____ stored on a ROM Chip, is responsible for loading the operating system from its permanent location on the hard drive into RAM. A. BIOS B. API C. Device driver D. Supervisor program
50	The _____ server is responsible to storing the static content and providing the same to the HTML browser when a http request is sent to the server. A. HTML B. Web C. Application D. Database