

Hall Ticket Number:

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Code No.: 228

VASAVI COLLEGE OF ENGINEERING (Autonomous), HYDERABAD
MCA II Year II - Semester (Main) Examinations, June - 2016

Finishing School-II

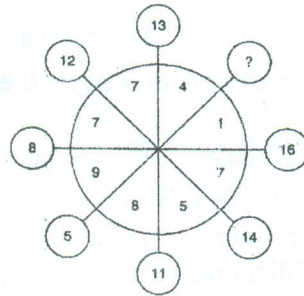
Time: 1½ hours

Max. Marks: 35

Note: Answer ALL questions in Part-A and any FIVE questions from Part-B

Part-A (5 X 2=10 Marks)

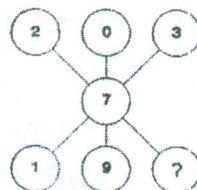
1. a) What number should replace the question mark? [1]



- (1) 17 (2) 10 (3) 20 (4) 14
- b) 17, 22, 27, 32, ?..... [1]
 (1) 33 (2) 35 (3) 38 (4) 37
2. a) If $x:y = 1:3$, then find the value of $(7x+3y):(2x+y)$ [1]
 (1) 14:5 (2) 15:5 (3) 16:5 (4) 17:5
- b) Salaries of Ravi and Summit are in the ratio 2:3. If the salary of each is increased by Rs 4000, the new ratio becomes 40:57. What is Summit present salary? [1]
 (1) 32000 (2) 34000 (3) 38000 (4) 40000
3. a) In how many ways can 10 students can be arranged in a row? [1]
 (1) 9! (2) 6! (3) 8! (4) 10!
- b) There are 12 yes or no questions. How many ways can these be answered? [1]
 (1) 4096 (2) 2048 (3) 1024 (4) 144
4. a) The price of sugar increases from 60 rs to 80 rs per kg. What is the percentage increase in the price? [1]
 (1) 20 % (2) 33.33% (3) 60% (4) none
- b) Marked Price of a Pen is 100 Rs. Successive discount of 15% and 20 % is given on the marked price of the pen. What is the new price of the pen after the discounts [1]
 (1) 68 Rs (2) 65 Rs (3) 75Rs (4) 95 Rs
5. a) At what time between 4 and 5 O' clock, the hands of a clock coincide? [1]
 (1) 21 ⁹/₁₁ minutes past 4 (2) 29 ¹/₁₁ minutes past 4
 (3) Both (1) & (2) (4) None
- b) Today is Wednesday, what will be the day after 100 days from today? [1]
 (1) Monday (2) Sunday (3) Saturday (4) Friday

Part-B (5 X 5=25 Marks)

6. a) i) 15, 45, 135, 405, [1]
 (1) 550 (2) 650 (3) 945 (4) 1215
- ii) Which number replaces the question mark? [1]



- (1) 8 (2) 3 (3) 1 (4) 6

Contd...2

- b) i) $100 + 50 * 2 = ?$ [1]
 (1) 200 (2) 150 (3) 100 (4) 300
- ii) Half of two third of a number is 90 then what is the number [1]
 (1) 250 (2) 270 (3) 180 (4) 360
- iii) $\sqrt{9604}$ [1]
 (1) 93 (2) 98 (3) 88 (4) 83
7. a) i) Madhan completes a piece of work in 10 days, Raj completes the same work in 40 days. If both of them work together, then the number of days required to complete the work is [1]
 (1) 15 days (2) 10 days (3) 9 days (4) 8 days
- ii) If 5 girls can embroider a dress in 9 days, then the number of days taken by 3 girls will be [1]
 (1) 20 days (2) 10 days (3) 14 days (4) 15 days
- b) i) A man has to bicycle 30 miles. He will travel at 6 mph. How long will it take? [1]
 (1) 3 hours (2) 5 hours (3) 2 hours (4) 7 hours
- ii) A car travels first half distance between two places with a speed of 40 km/hr and rest of the half distance with a speed of 60 km/hr. The average speed of the car is: [1]
 (1) 48 km/hr (2) 37 km/hr (3) 44 km/hr (4) 45 km/hr
- iii) Two taps A and B can fill a tank in 10 hours and 15 hours respectively. If both the taps are opened simultaneously, in how much time the tank will be filled? [1]
 (1) 6 hours (2) 2 hours (3) 7 hours (4) 3 hours
8. a) i) A jar contains 3 red marbles, 7 green marbles and 10 white marbles. If a marble is drawn from the jar at random, what is the probability that this marble is white? [2]
 (1) $1/2$ (2) $3/2$ (3) $5/2$ (4) $7/2$
- ii) One card is drawn at random from a pack of 52 cards. What is the probability that the card drawn is a face card (Jack, Queen and King only)? [1]
 (1) $1/13$ (2) $3/13$ (3) $1/4$ (4) $9/52$
- b) i) What is the value of ${}^{100}P_2$? [1]
 (1) 9801 (2) 12000 (3) 5600 (4) 9900
- ii) In how many ways can six different rings be worn on four fingers of one hand? [1]
 (1) 10 (2) 12 (3) 15 (4) 16
9. The following table gives the percentage of marks obtained by seven students in six different subjects in an examination.

The Numbers in the Brackets give the Maximum Marks in Each Subject.

Student	Subject (Max. Marks)					
	Maths	Chemistry	Physics	Geography	History	Computer Science
	(150)	(130)	(120)	(100)	(60)	(40)
Ayush	90	50	90	60	70	80
Aman	100	80	80	40	80	70
Sajal	90	60	70	70	90	70
Rohit	80	65	80	80	60	60
Muskan	80	65	85	95	50	90
Tanvi	70	75	65	85	40	60
Tanun	65	35	50	77	80	80

- a) i) What are the average marks obtained by all the seven students in Physics? [1]
 (Rounded off to two digit after decimal)
 (1) 77.26 (2) 89.14 (3) 91.37 (4) 96.11
- ii) The number of students who obtained 60% and above marks in all subjects is? [1]
 (1) 1 (2) 2 (3) 3 (4) None

- b) i) What was the aggregate of marks obtained by Sajal in all the six subjects? [1]
 (1) 409 (2) 419 (3) 429 (4) 449
- ii) In which subject is the overall percentage the best? [1]
 (1) Maths (2) Chemistry (3) Physics (4) History
- iii) What is the overall percentage of Tarun? [1]
 (1) 52.5% (2) 55.4% (3) 60.0% (4) 63.9%
10. a) i) 120, 99, 80, 63, 48, _____ [1]
 (1) 36 (2) 35 (3) 26 (4) 39
- ii) 125, 80, 45, 20, _____ [1]
 (1) 6 (2) 8 (3) 5 (4) 10
- b) Directions: All the faces of a cube are painted in green colour. The cube is cut into 125 small cubes [3]
- i) How many cubes have no faces painted?
 (1) 0 (2) 8 (3) 4 (4) 27
- ii) How many cubes have three faces painted?
 (1) 0 (2) 8 (3) 4 (4) 27
- iii) How many cubes have only one face painted?
 (1) 24 (2) 54 (3) 36 (4) none of these
11. a) i) If 15% of 30% of a number is 15, the number is [2]
 (1) 333 (2) 300 (3) $333\frac{1}{3}$ (4) 334
- ii) $(3080 + 6160) / 28$ [1]
 (1) 380 (2) 350 (3) 330 (4) 310
- b) Two pipes can fill a tank in 10 hours and 12 hours respectively. while third pipe empties the full tank in 20 hours. If all the three pipes operate simultaneously, in how much time the tank will be filled? [2]
 (1) 5 hours 45 minutes (2) 8 hours 35 minutes
 (3) 7 hours 30 minutes (4) 6 hours 55 minutes
12. Answer any **two** of the following: [5]
- a) In how many different ways can the letters of the word 'RUMOUR' be arranged?
 (1) 180 (2) 128 (3) 360 (4) None of these
- b) If the price of the 12 tables is equal to the selling price of 16 tables, then the percent of loss is?
 (1) 15% (2) 25% (3) 10% (4) 30%
- c) 63, 66, 71, 78, 87, _____
 (1) 98 (2) 89 (3) 93 (4) 95
