Sec 1 – English

In recent years, there has been a lot of talk about cloud computing and cloud storage. Almost everything in the digital world _____ (are / is/ was) connected to the cloud in some way or another — unless it is specifically kept in local storage for security reasons. As tech giants and startups _____ (find/ found /founded) new ways to organize, process and present data, cloud computing _____ (will / would/ shall) become a more and more integral part of our lives. So what is cloud computing? And, what is the impact of cloud computing on future business strategies? Cloud computing is the _____ (practice / practices/ practising) of using a network of remote servers _____ (host / hosted/ hosting) on the Internet to store, manage, and process data, rather than a local server or a personal computer. What that means for businesses is a workspace that their entire team _____ (could / can / would) interact in, regardless of where they are in the world. It also means that businesses can outsource their computing power instead of_____ (invest / invested / investing) in hardware, software, and staff to maintain it. During the next years, it is _____ (predicted / predictable / predictive) that more than a quarter of all applications will be available via the cloud. The huge adoption of cloud services _____ (combine / combined / combines) with a general need to simplify operations, will put a _____ (greater / great / greatest) pressure to create connections between various apps.

==========***==========

Sec 2 – Quant

Q1. Raju can do a piece of work in 10 days, Vicky in 12 days and Tinku in 15 days. They all start the work together, but Raju leaves after 2 days and Vicky leaves 3 days before the work is completed. In how many days is the work completed?

Q2. In a potato race 20 potatoes are placed in a line at intervals of 4 metres with the first potato 24 metres from the starting point. A contestant is required to bring the potatoes back to the starting place one at a time. How far would he run in bringing back all the potatoes?

Q3. A shop sells chocolates. It used to sell chocolates for Rs 4.50 each, but there were no sales at that price. When it reduced the price, all the chocolates were sold out enabling the shopkeeper to realise Rs. 316.82 from the chocolates alone. If the new price was not less than half the original price quoted, how many chocolates were sold (at the reduced price)?

Q4. If A, B and C are three positive integers such that A is greater than B and B is greater than C, then which of the following is definitely true?

i. A% of B is greater than B% of C.
ii. B% of A is greater than C% of B
iii. C% of A is greater than B% of C

Options: -

i only
i and ii
i,ii and iii
ii and iii only

Q5. It was Sunday on Jan 1, 2006. What was the day of the week Jan 2, 2010?

1. Friday
2. Saturday
3. Monday
4. Sunday

Q6. The average of twenty results is 62. If the average of first eleven results is 60 and that of the last ten results is 65 find the eleventh result.

1. 70
2. 72
3. 65
4. 69

Q7. The remainder when m + n is divided by 12 is 8, and the remainder when m - n is divided by 12 is 6. If m > n, then what is the remainder when mn divided by 6?

1. 4
2. 2
3. 1
4. 3

Q8. Which of the following represents the largest 4 digit number which can be added to 7855 in order to make the derived number divisible by each of the following numbers: 12, 14, 21, 33, and 54?

1. 461
2. 8777
3. 9965
4. 9953

Q9. The length, breadth and height of a room are in the ratio 3:2:1. If the breadth and height are halved while the length is doubled, then the total area of the four walls of the room will:

1. Decrease by 13.6%
2. Decrease by 15%
3. Decrease by 30%
4. Decrease by 18.75%

Q10. A boat can travel with a speed of 13 km/hr in still water. If the speed of the stream is 4 km/hr, find the time taken by the boat to go 68 km downstream.

1. 4 hours
2. 3 hours
3. 2 hours
4. 5 hours

Q11. Two cars start at the same time from A and B and travel towards each other at speeds of 50 kmph and 60 kmph respectively. At the time of their meeting the second car has traveled 120 km more than the first. The distance between A and B is:

1. 720 kms
2. 1230 kms
3. 600 kms

4. 1320 kms

Q12. In 2 years, Raj's father will be twice Raj's age then; whereas four years ago, his mother was twice his age then. If Raj is going to be 27 years old four years from now, then what is the sum of his parents' age now?

1. 90
2. 86
3. 92
4. 88

Q13. The Air conditioned bus from Siruseri Industry park runs at regular intervals throughout the day. It is now 3:12 pm and the last bus arrived 1 minutes ago but it was 2 minutes late. The next bus is due at 3:18 pm. When is the bus after that due?

1. 3:25 pm
2. 3:27 pm
3. 3:29 pm
4. 3:24 pm

Q14. The letter of the word LABOUR are permuted in all possible ways and the words thus formed are arranged as in a dictionary. What is the rank of the word LABOUR?

1. 275
2. 242
3. 251
4. 240

Q15. Given that 1 < a < b < c < d, which of the following is the largest?

NOTE 1: In this question, x^y stands for x raised to the power y. Hence 2^3=8 and 4^1.5=8.

NOTE 1: In this question exp(x) is e (approximately 2.7183) raised to the power x. Thus exp (2.303) is approximately 10.

1. exp(b ^ c) / exp(a ^ d)
2. exp(b ^ d) / exp(a ^ c)
3. exp(a ^ d) / exp(b ^ c)
4. exp(c ^ d) / exp(a ^ b)

Q16. Rs. 3000 is distributed among A, B and C such that A gets 2/3rd of what B and C together get and C gets 1/2 of what A and B together get. Find C's share.

1. 1800
2. 1000
3. 1200
4. 1500

Q17. There are three inlet taps A, B and C in a tank. They can fill the tank in 5 h, 30 h and 105 h respectively, if opened individually. The tank is empty. At first, all the 3 taps are opened simultaneously. After one hour, tap C is closed and A and B are kept running. After another one hour, tap B is also closed. The remaining portion of the tank was filled by tap A alone. What percentage of the tank was filled by tap A in this process (answer to the nearest percentage)?

1. 92%
2. 82%
3. 10%
4. 89%

Q18. Eesha bought two varieties of rice, costing 50 Rs per kg and 60 Rs per kg each, and mixed them in some ratio. Then she sold the mixture at 70 Rs per kg, making a profit of 20 percent. What was the ratio of the mixture?

1. 2:7
2. 3:8
3. 1:5
4. 1:10

Q19. In a 500 m race, the ratio of the speeds of two contestants A and B is 3 : 4. A has a start of 140 m. Then, A wins by:

1. 40 m
2. 10 m
3. 60 m
4. 20 m

Q20. There are two bags containing white and black balls. In the first bag, there are 8 white and 6 black balls and in the second bag, there are 4 white and 7 black balls. One ball is drawn at random from one of the two bags chosen at random. Find the probability of this ball being black.

1. 41/308
2. 41/77
3. 8/77
4. 21/308

==========***==========

Sec 3 – ProgLogic

Sl No	Question Type	Question
1	union/structure	What will be the output of the below program, : #include<stdio.h> int main(){union var{int a, b;};union var v;v.a=10;v.b=20; printf("%d\n", v.a);return 0;}
2	algo	Look at the psuedo code below. How many times does the while loop get executed if the following function is called as f(150,10)? f(m.n) {ans := 1 while (m - n >= 0) { ans := ans * 2m := m - n}return(ans)}
3	Data type	The data type in C that occupies the least storage size is 1. char 2. int 3. double 4. float
4	cmd line	In the below declaration in C language int main(int arg1, char * arg2[]) arg1 represents 1. The 1st parameter passed to the program 2. The count of command line parameters passed to the program 3. The 1st parameter passed to the program 4. None of the other three options
5	header file	The header file that should be included for all common I/O operations in C language is 1. conio.h 2. stdlib.h 3. stdio.h 4. io.h
6	memory	In C language, the correct way to de-allocate memory is: 1. free(ptr) 2. delete(ptr) 3. dealloc(ptr) 4. unalloc(ptr)
7	controls	How many times “hello world” gets printed? #include<stdio.h>int main(){int i=1;for(; i<=10; i++){if(i < 5)continue; else break;printf("hello world");}return 0;} 1. Infinite times 2. 0 times 3. 11 times 4. 10 times
8	error spotting	Is there an error in this program? #include<stdio.h>int main(){int i=1;for(;;){printf("%d\n", i++);if(i>10)break;}} 1. for loop syntax is wrong 2. No Error 3. parameters for main is missing 4. return statement is mandatory at the end of the program

9	OO	When you login to your webmail account, a lot of processing take place in the backend that you are not aware of or have have no control over. For example, your password, would be retrieved in an encyrpted form, verified and only then you are given access. You do not have any control, over how the password is retrieved or verified. In Object oriented paradigm, this process of hiding the implementation from the user, so that he/she is aware only of what the application does and not how it does it is called? 1. Inheritance 2. Polymorphism 3. Abstraction 4. Overloading
10	DS	Eesha is developing a word processor in which she wants to implement “auto complete” feature. With this feature, as and when we start typing a word, the word processor will suggest the rest of the word. To implement this, what data structure is most suitable? 1. list 2. tree 3. array 4. stack

==========***==========

Sec 4- Coding

Write a program that accepts one integer number from STDIN, reverse its digits and prints the output to STDOUT as integer with no decimals.

For example, if the input value is 12345 the output that should be written to STDOUT is 54321.
You can assume that the input value will not exceed 10,000
Other than the required output, no other characters / string or message should be written to STDOUT.

==========***==========

Answer Key : English

1.is
2. find
3. will
4. practice
5. hosted
6. can
7. investing
8. predicted
9. combined
10. greater

Answer Key : Aptitude

Q1 – 7
Q2 – 2480
Q3 – 73
Q4 - i,ii and iii
Q5 – Saturday
Q6 – 70
Q7 – 1
Q8 – 8777
Q9 – decrease by 30%
Q10 – 4 hours
Q11 – 1320 kms
Q12 – 90
Q13 – 3:27pm
Q14 – 242
Q15 - exp(c ^ d) / exp(a ^ b)
Q16 – 1000
Q17 – 92%
Q18 – 1: 5
Q19 – 20 m
Q20 – 41/77

==========***==========

Answer Key : Programming Logic

Q1 – 20
Q2 – 15
Q3 – char
Q4 - The count of command line parameters passed to the program
Q5 – stdio.h
Q6 – free(ptr)
Q7 – 0 times
Q8 – No error
Q9 – Abstraction
Q10 – tree