

# STMicroelectronics Aptitude Model Paper

1. Which of the following no. can be represented w/o any error using IEEE format (64 bits-1 bit sign bit, exponent 7, mantissa 56)

a).2   b).4   c).5   d) none

2. CRC polynomial is given. Message is given. Find the message to be transmitted.

3. what are the gates used in half adder.

4. Simplify a Boolean equation (Karnaugh map is used to solve)

5. which of the devices can be used as latch?

a). JK F/F

b). SR latch

c). Data F/F

d). T F/F.

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6. the probability of the message coming out of a source is  $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{8}$ . what is the information content in the message?

a.  $\frac{6}{5}$

b.  $\frac{7}{4}$

c. 1

d. none

7. How many page faults are required for swapping given pages using LRU algo. For a frame size of 3.

8. The time of exec. Of 4 processes P1-P4 are given using Round robin(1 sec) method find the time taken for P4 to finish?

9. `main()`

`{fork();fork();fork();}`

How many processes are created?

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10.a.while(;;)

{b.while(;;)

{sleep();}

a. which of the following is true?

b. execution time of a is more than b

c. execution time of b is more than a

d. similarly 2 more options r given.

11. mov sp, addr

call addr

pop sp

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what is the value stored in sp and hl?

**12.** Y catches 5 times more fishes than X. If total number of fishes caught by X and Y is 48, then number of fishes caught by X?

**Ans:** 8

**13.** Y catches 5 times more fishes than X. If total number of fishes caught by X and Y is 42, then number of fishes caught by X?

**Ans:** 7

**14.** If a train covers 600m in 0.5 seconds, how long it will cover in 10 seconds?

**Ans:** 3000m = 3km

**15.** The girl's age is twice that of boy, if the boy is four years old. After four years the age

of the girl is

**Ans:** 12 years

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**16.** Sister's age is twice than that of the brother. If the brother's age is six, what is the sister's age after two years?

**Ans:** 14 Yrs.

**17.** Two lemons cost 10 cents. Then one and a half dozen cost

**Ans:** 90 cents

**18.** A clock is late by 1 minute 27 seconds in a month. Then how much will it be late in 1 day?

**Ans:** 2.9 seconds

**19.** Which of the following figures together will make a triangle?

**Ans:** a,b,c,d

**20** Make a square by drawing only one line

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**Ans:** line 2-5, square 2-3-4-5-2

**21.** Which of the following is the odd one? crew, constellation, companion, league, participants.

**Ans:** companion

**22.** Opposite of Remote?

(a) Far (b) Near (c) Huge (d) Village

**23.** Statement A: All great men are ridiculous;

Statement B: I am ridiculous ;

Inference : I am a great man;

(a) True (b) False (c) Not clear

**24.** Statement: Normal children are active;

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Inference: All children are active;

(a) True (b) False (c) Uncertain

25. Next number in the series 1,  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$  ?

**Ans:**  $\frac{1}{16}$

26. In 6 seconds a light flashes once. In one hour how many times it will flash?

**Ans:** 601 times

27. At 20% discount, a cycle is sold at a selling price of 2500 Rs. What is the actual price?

**Ans:** Rs. 3125

28. Statement A: A & B have same age;

Statement B: B is younger than C;

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Inference : A is younger than C;

(a) True (b) False (c) Uncertain

**29.** All chickens lay eggs (True/False)

**Ans:** False

**30.** A invests \$12000, B invests \$8000, C invests \$6000 and they got a profit of \$1200. How much share A got more than B and C?

**Ans:** 2/13 and 3/13