Name: _____

Entrance Test: International Bachelor
Sunday 18th August 2019
Duration: 120 min.

No documents allowed -please switch off your mobile phone

Part 1: Problem solving & Quantitative reasoning 20 points - Indicative time: 90 minutes
Part 2: General Knowledge of Economics and Management 10 points - Indicative time: 30 minutes

***

Part 1: Problem solving & Quantitative reasoning 20 points - Indicative time: 90 minutes
Write your answer in the blank space below the question

Q1. The average weight of five amplifiers in a guitar shop is 32kg. If four of the amplifiers weigh 25, 27, 19, and 35kg, what is the weight of the fifth amplifiers?

$$32 = \frac{25 + 27 + 19 + 35 + x}{5}$$

$$x = 54$$

Q2. Out of every 50 CDs produced in a certain factory, 20 are scratched. What is the ratio of unscratched CDs produced to scratched CDs produced?

$$\frac{30}{20} \ or \ \frac{3}{2}$$

Q3. Last year Marineth 's annual salary was $20,000. This year's raise brings her to an annual salary of $25,000. If she gets a raise of the same percentage every year, what will her salary be next year?

$$Projected \ salary = 25000 * 25\% + 25000 = 31250$$

Q4. Five people attend a meeting. If each person shakes hands once with every other person at the meeting, what is the total number of handshakes that take place?

4+3+2+1=10

Q5. Leakhena needs to buy five gifts with $80. If two of the gifts cost a total of $35, what is the average (arithmetic mean) amount Leakhena can spend on each of the remaining three gifts?

$$(80 – 35)/3=15$$

Q6. If the length of a turtle is directly proportional to its age, and a 2-year-old turtle is 3 centimeters long, how many centimeters long is an 80-year-old turtle?

$$3=T*2$$

$$T=1.5$$

$$L=1.5*80= 120$$

Q7. If $x^2 - 7x + 12 = 0$, what is the sum of the two possible values of x?

$$x^2 - 7x + 12 = 0$$

$$(x - 4)(x - 3) = 0$$

$$x = 4 \; ro \; x = 3$$

$$4 + 3 = 7$$

Q8. Sopheak purchased a new car in 2015. Three years later, he sold it to a dealer for 40 percent less than he paid for it in 2015. The dealer then added 20 percent onto the price he paid and resold it to another customer. The price that final customer paid for the car was what percent of the original price Sopheak paid in 2015?

72%

Q9. In a class of 27 students, the average (arithmetic mean) score of the male students on the final exam was 83. If the average score of the 15 female students in the class was 92, what was the average of the whole class?

88

Q10. What is 10% of 20% of 30% ?

0.6%

Q11. Sokha drove to a meeting at 60 Kilometers per hour. Returning over the same route he encountered heavy traffic and was able to drive at only 40 kilometers per hour. If the return trip took 1 hour longer, how many kilometers did he drive each way?

a. 2
b. 3

c. 5
d. 120
e. 240

Q12. In 1980, Sophy (woman) was 3 times as old as Dara (man), but in 1984 she was only twice as old as he was. How old was Adam in 1990?

a. 4
b. 8
c. 12
d. 16

Q13. On a certain project the only grades awarded were 75 and 100. If 85 students completed the project and the average of their grades was 85, how many earned 100?

a. 34
b. 40
c. 45
d. 51
e. 60

Q14. In an office there was a small cash box. One day Sothea took half of the money plus $1 more. Then Pisey took half of the remaining money plus $1 more. Mony then took the remaining $11. How many dollars were originally in the box?

a. 40
b. 45
c. 50
d. 55
e. 60

Q15. The ratio of two quantities is 3:4. If each of the quantities is increased by 1, what is the ratio of these two new quantities?

a. $\frac{9}{16}$
b. $\frac{2}{3}$
c. $\frac{3}{4}$
d. $\frac{4}{5}$
e. It cannot be determined from the information given.

Q16. A reservoir is at full capacity at the beginning of summer. By the first day of fall, the level in the reservoir is 30 percent below full capacity. Then during the fall, a period of heavy rains increases the level by 30 percent. After the rains, the reservoir is at what percent of its full capacity?

a. 60%
b. 85%

c. 91%
d. 95%
e. 100%

Q17. If $n \neq 0$, then which of the following must be true?

I. $n^2 > n$
II. $2n > n$
III. $n + 1 > n$

a. I only
b. II only
c. III only
d. I and III only
e. I, II, and III

Q18. If $\sqrt{x + 2y} - 2 = 15$, what is the value of y in terms of x?

a. $\frac{289 - x}{2}$
b. $289 - x$
c. $\frac{17 - x}{2}$
d. $17 - x$
e. 289

Q19. If $f(x) = 2 - \sqrt{x - 7}$, and f(x) is a real number, which of the following cannot be the value of x ?

a. 4
b. 7
c. 11
d. 102
e. 496

Q20. A scientist is running an experiment with two species of bacteria that grow exponentially. If species A doubles in population every 2 days, species B doubles in population every 5 days, and each species began the experiment with a population of 50 bacteria, what will the difference be between the population of the two species after 10 days.

a. 200
b. 800
c. 1200
d. 1400
e. 1500

Part 2: General Knowledge of Economics and Management 10 points - Indicative time: 30 minutes

Q21. If the demand for agricultural products is inelastic:

a. as the prices decrease, the revenues earned by producer's increase;
b. as the prices decrease, the revenues earned by producer's decrease;
c. rising prices do not lead to differentiation in producers' incomes;
d. the percentage decrease in prices is lower than the percentage increase in demand.

Q22. Which of the following statements about monopoly is true?

a. there are several companies producing a specific product;
b. there is only one producing company, but the product has close substitutes;
c. there are no competitors on the relevant market;
d. input barriers are low.

Q23. The main objective of a company's pricing strategy is:

a. to increase sales;
b. to achieve profitability;
c. to build customer loyalty;
d. to differentiate itself from the competition

Q24. The market information function of marketing is:

a. to maximize economic efficiency;
b. to meet consumers' needs;
c. to connect the company to the economic and social environment;
d. to research the market and consumers' needs.

Q25. The opportunity cost of an item is

a. The number of hours needed to earn money to buy it.
b. What you give up to get that item.
c. Always less than the dollar value of the item.
d. Always equal to the dollar value of the item.

Q26. Which country is to the east of Cambodia?

a. Lao
b. Thailand
c. Vietnam
d. Iran

Q27. When was Cambodia under UN administration?

a. 1988-1989
b. 1976-1984
c. 1992-1993
d. 1998-2002

Q28. What does EBA of the European Union stand for?

a. E Business Administration
b. Everything But Arms
c. Enterprise Bargaining Agreement
d. Everything But Art

Q29. Name the type of government in Cambodia?

a. Presidential Federal republic
b. Socialist Republic
c. Democratic constitutional monarchy (King)
d. Constitutional monarchy

Q30. Who was the king of Cambodia in 1941-1955?

a. Sisowath
b. Monivong
c. Norodom Sihamoni
d. Norodom Sihanouk