

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?

.....

.....

**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?

.....

.....

**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?

Preah Monivong Blvd., Sangkat Tonle Bassac, Khan Chamkamon, PO Box 842, Phnom Penh, CAMBODIA. Tel: (855) 23 72 64 71 - Email: urdsecoopfreco@gmail.com - Website: www.rule.edu.kh



FACULTY OF ECONOMICS AND MANAGEMENT

OF LAW AND ECONOMICS

**ROYAL UNIVERSITY** 

**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?

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

.....



FACULTY OF ECONOMICS AND MANAGEMENT

OF LAW AND ECONOMICS

**ROYAL UNIVERSITY** 

**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?

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

**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 Dara 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. Il 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-xc.  $\frac{17-x}{2}$ 

- 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



FACULTY OF ECONOMICS AND MANAGEMENT

OF LAW AND ECONOMICS

**ROYAL UNIVERSITY** 

### **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. Myanmar

#### 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



# Entrance Test: International Bachelor August 16<sup>th</sup>, 2019 Duration: 120 min.

### No documents allowed -please switch off your mobile phone

Part 1: Writing Assessment. Duration: 45 min. - 40 points

Part 2: Structure and written expression 40 Questions- 40 Points. Indicative time: 35 min.

Part 3: Reading comprehension. 20 questions - 20 points. Indicative time: 40 min.

## Part 1: Writing Assessment Duration: 45 min. - 40 points

2 pages maximum Please use the exam sheet to write your essay. (Do not forget to indicate your first and last name on the exam sheet!)

Directions: On your exam copy, write a clear logical and well organized response to the following question. Your response should be in the form of a short essay. Your answer should not exceed 2 pages. Write legibly. Essays that are illegible or are written on a topic other than the one outlined in the question will not be scored.

Explain the reason why Cambodia is a great place to visit?

# Part 2: Structure and written expression 40 Questions- 40 Points Indicative time: 35 min.

Each of the following sentences contains one blank; each blank indicates that a word or set of words have been left out. Below the sentence are four words or phrases, marked (A), (B), (C), and (D). Select the word or set of words that best complete the sentence.

- 1. The teacher suspected cheating as soon as he noticed the pupil's \_\_\_\_\_ glances at his classmate's paper.
  - a. futile
  - b. sporadic
  - <mark>c. furtive</mark>
  - d. cold
- 2. The gymnasium facilities of this public school are \_\_\_\_\_ those of the finest private school in the country.
  - a. second after
  - b. second only to
  - c. first except for
  - d. second place from

3. The more the horse tried to free itself from the restraint, \_\_\_\_\_.

- a. the tighter it became
- b. it became tighter
- c. the horse could not escape
- d. it was unable to move
- 4. \_\_\_\_\_, that runner is likely to be the first one chosen.

a. Due to her agility and speed

- b. Because of she is agile and fast
- c. Because agile and rapid
- d. Because her agility and speed
- 5. It was not until the students were seated \_\_\_\_\_ the proctor realized he had the wrong test booklets.
  - <mark>a. that</mark>
  - b. when
  - c. as soon as
  - d. and

- 6. As a result of the additional rain with so much flooding already having occurred, residents were seeking shelter \_\_\_\_\_ than in previous years.
  - a. in more numbers
  - b. more numerously
  - c. greater in numbers
  - d. in greater numbers
- 7. The company president wrote an e-mail and planned to send \_\_\_\_\_ as soon as the vote was complete.
  - a. to all directors the message
  - b. the message by all directors
  - c. message to all directors
  - d. the message to all directors
- 8. As the result of Diane's illness and the effects of the medication, \_\_\_\_\_\_ to curtail her work and public speaking activities.
  - a. has
  - b. had
  - c. she has had
  - d. she will had
- 9. The man displayed his anger when he discovered that the laundry machine was \_\_\_\_\_ order.
  - a. out b. out of
  - c. no on
  - d. outside
- 10. In spite of the fact that the Olympic athletes are not permitted to complete for compensation, some of them\_\_\_\_\_ the past and will again in the future.
  - a. so did in
  - b. complete in
  - c. in
  - d. did so in
- 11. To master the art of fiction writing \_\_\_\_\_\_ discipline and practice, as well as studying the works of other great authors.
  - a. require
  - b. requires
  - c. requiring
  - d. that requires

- 12. Because it is impossible for rescuers to dig through much of the rubble, the number of people affected by the devastating earthquake \_\_\_\_\_ yet been determined with certainty.
  - a. have notb. has not
  - c. not
  - d. only
- 13. Heather Friedman, \_\_\_\_\_ at many school functions and other community events, is destined for fame and fortune if she receives the right backing and is discovered by the right people.
  - a. who has sung
  - b. has sung
  - c. sung'
  - d. sang
- 14. Some types of digital telephone cannot \_\_\_\_\_ in places where other work fine.
  - a. to function
  - b. functioned
  - c. functioning
  - d. function

15. Ricky Martin, \_\_\_\_\_\_ of the band Menudo, attained great popularity in the late 1990s.

- a. formerly member
- b. a former member
- c. was a former member
- d. being former member

Question 16-40, each sentence has four underlined words or phrases. The four underlined parts of the sentence are marked (A), (B), (C), and (D). Identify the one underlined word or phrase that must be changed in order for the sentence to be correct.

16. Hepatitis C generally occurs 20 to 30 year after one is exposed to the illness. Α B С D 17. The knee is the recipient of constant pressure, which causes them to fail often and A В C D requires replacement with artificial parts. 18. Effective speaking and proficient writing is generally seen as requirements for a C Α В D professor to achieve tenure.

19. Universities often ignore a student's lack of scholastically ability when the student A B has great athletic potential in a sport that is important to the school. С D 20. Jonn Steinbeck he wrote down-to-earth accounts of individuals and families who A В С suffered through the Great Depression. D 21. Numismatics, the study of coins, can be very rewarding once a person becomes Α В familiar with determining the date and type of a coin, as well as grade it. С 22. Listening to recorded books while driving is a means of utilize time wisely. В А C D 23. The passionate and exuberant display of the orchestra conductor moving several В C A members of the audience to tears. D 24. As a company grows in size, it is important to maintain communicate among the В C Α D various departments. 25. Research involving animals is useful when researchers developing medicines В C А to combat illnesses of both animals and people. D 26. An orangutan escaped from the zoo and was foraged food in a residential С A B D neighborhood. 27. Spanish is the only course that it is not offered in the summer term, but there are A В several classes offered in the fall. С D

28. Sarah was not best speaker in the class, but her personality and ability to convey С A В her feeling helped her become the most requested. D 29. The issues learned during the early stages of the project causing the researchers to A В C initiate additional research. D 30. Only when black bear has been spotted by the forest rangers will this portion of В С A the park be closed down. D 31. Television news producers are sometimes accuse of sensationalism, but it appears С A B that is what the public desires. D 32. The workers attempted to free the cat from the trap, but several obstacles were В С А in way. D 33. Not only could the younger people <u>completed</u> all the work <u>quickly</u> and accurately, A В but the retired workers could also? С D 34. Allen's not having finished his thesis did not discourage him from applying for В С А other degree program. D 35. That investors in the stock market enjoys increases and suffer declines is simply a В A fact of the financial market, and a smart investor is not too excited about the former С or crestfallen about the latter. D

36. Had Jorge be able to complete his thesis instead of returning to work, he would A В С have graduated a year ago. D 37. After the data has received and reviewed, the finance department employees A В should be able to determine the best course of action. С D 38. After the jury had determined liability, its next task was to decide how much Α В С money should it assess as damages. D 39. If the Board had not reversed its position on the petition to approve the fence, the Α В owner would had to remove it. C D 40. Students may buy used books if they had been readily available and correctly Α B С priced. D

### Part 3: Reading comprehension

20 questions - 20 points. Indicative time: 40 min.

You will read a number of passages. Each one is followed by approximately ten questions about it. Answer all of the questions following a passage on the basis of what is stated or implied in that passage. Choose the one best answer, (A), (B), (C), or (D), to each question.

Questions 41 through 45 are based on the following passage. The answers are in the text. Only one correct answer for each question.

### Passage 1

Tube worms live <u>anchored</u> to the sea floor, 1,700 feet below the ocean surface, near natural spring vents that <u>spew forth</u> water from the earth. They live off geothermal energy instead of sunlight. There are two species of the tube worm family, with very different lengths of life and growth rates, but similarities as well.

The slow-growing tube worms are known to live as long as 250 years, making them the logestliving sea invertebrates known. This species lives near cold sea-floor seeps and may not grow at all from one year to the next. Even when they do grow, it is generally form a half an inch to four inches per year. In spite of their slow growth, due to their long lives, they can reach nine feet before they die, although they are thinner than the hot-water worms.

The seeps under the slow-growing tube worms are rich with oily materials. The environment in which they live is slow and peaceful, stable and low-energy. The cold-water seeps and the tube warms that reside there may live hundreds or thousands of years.

In <u>stark</u> contrast, the fast-growing tube worms live a quick and short life, growing rapidly. They attach themselves near hot steaming vents that force water into the sea, growing about two and a half feet a year, and up to eight feet <u>overall</u>. They live by absorbing sulfur compounds metabolized by bacteria in a symbiotic relationship.

The hot water vents spew forth scalding water filled with hydrogen sulfide, which the tiny bacteria living in the worms' tissues consume. These tube worms live a rapid life, with none of the relaxing characteristics of the cold-water tube worms.

41. The word anchored in the first sentence is closest in meaning to

### (A) affixed

- (B) contentedly
- (C) feeding
- (D) above

42. The expression spew forth in the first sentence is closest in meaning to

(A) inhale(B) discharge(C) control(D) eliminate

43. The author implies that a *vent* and a *seep* are

- (A) the same
- (B) different in that a *vent* involves rapid discharge while a *seep* involves slow discharge.
- (C) different in that a *vent* involves discharge while a *seep* involves intake.
- (D)Different in that a *vent* involves slow discharge while a *seep* involves rapid discharge.
- 44. The passage indicates that the two types of tube worms discussed are
  - (A) from totally different families.
  - (B) different in that one is not a true tube worm at all
  - (C) from the same family but different species
  - (D) from the same species and only differ because of habitat.

- 45. The author states that the cold-water tube worm
  - (A) grows slower that the hot-water tube worm
  - (B) grows faster than the hot-water tube worm
  - (C) does not grow as high as the hot-water tube worm
  - (D) does not live as long as the hot-water tube worm.
- 46. The word *stark* in the fourth paragraph is closest in meaning to

(A) complete

- (B) somewhat
- (C) comparative
- (D) interesting
- 47. The word overall in the fourth paragraph is closes in meaning to
  - (A)<mark>lifetime</mark>
  - (B) annually
  - (C) generally
  - (D) rapidly
- 48. The author indicates that the ingredients in the water that comes from the two types of vents are
  - (A) different only because the heat of the hot vents destroys the oil as it spews forth
  - (B) different in that one contains bacteria and the other contains oily materials

(C) the same

(D) different in that one contains oily materials and the other contains hydrogen sulfide

# Questions 49 through 60 are based on the following passage. The answers are in the text. Only one correct answer for each question.

### Passage 2

The period commonly known as the Renaissance (1400-1600) began in Florence, Italy. It represented a renewed interest in Greek and Roman art and literature. The greatest achievements in art during this period were the perfection of depth perspective, use of colors, and effects of light and shadow. Artist across Europe improved on the ancient artists' techniques as no other period had done. The learned were studying Greek and Roman to read the ancient literary classics. There were many advances in science and technology, discoveries in the New World, and changes in religion. The growth of universities throughout Europe helped create a more educated middle class that was to take over running the government within the following centuries. Europe had come out of the Dark Ages. This idea of rebirth in learning characterized other epochs in history in different part of the world.

In A.D. 800, Charlemagne became king of the Franks and initiated the Carolingian renaissance, which lasted until the end of the ninth century. This period saw beautiful and more modern cities patterned on Roman architecture. Charlemagne stimulated learning and the development of the arts, sponsored a palace academy, established a curriculum in schools for the nobility,

created libraries (a carryover from Alexandrian Egypt of 323 B. C.), and changed writing to an improved style of script.

Kievan Russia also enjoyed a century of rebirth some two hundred years later under the able rule of Yoroslav the Wise. Like Charlemagne, he founded schools, established libraries, and brought about many architectural achievements.

49. Which was the earliest period of rebirth mentioned?

- (A)Russian
- (B) Italian

(C) Carolingian

- (D)Roman
- 50. Which city did Charlemagne look upon as a model for his architectural improvement?
  - (A) Kiev
  - <mark>(B) Rome</mark>
  - (C) Carolingian
  - (D)Frank
- 51. All of the following are mentioned as characteristics of periods of renaissance EXCEPT
  - (A) maintaining the status quo
  - (B) improved education
  - (C) architectural advance
  - (D) the creation of libraries
- 52. What can we assume about Yaroslav?
  - (A)He was demented
  - (B) He was a competent leader
  - (C) He was inept
  - (D)He as cruel
- 53. According to the passage, what do all three periods have in common?
  - (A) A concern for education and learning
  - (B) A desire for advanced science and technology
  - (C) An aversion to new libraries
  - (D)An interest in traveling throughout the world
- 54. What does the word "renaissance" mean in the context of these three civilizations?

(A)Improving on the basic principles of past cultures

- (B) Trying to do everything as the ancients had done
- (C) Helping to maintain Roman culture at any cost
- (D) Tearing down existing buildings and using Roman architectural techniques for new ones.

55. Which of the renaissance periods lasted the longest?

### (A)Italian

- (B) Carolingian
- (C) Alexandrian
- (D) Kievan
- 56. Which of the renaissance had the most widespread and lasting effect on future generations?

### (A)Italian

(B) Kievan

- (C) Alexandrian
- (D)Carolingian
- 57. The main idea of this passage is that
  - (A)Throughout history there has been a rebirth of ideas and an effort to copy without creating anything new
  - (B) Only western Europe was interested in rebirth
  - (C) The periods of rebirth saw greater advances for each culture
  - (D)Rebirth of a culture does not depend on outside influences

# Questions 58 through 60 are based on the following passage. The answers are in the text. Only one correct answer for each question.

### Passage3

Gelatin is a protein substance that comes from the skins and bones of animals. Most people know it as the substance used to make a jellylike salad or dessert. Not only is it useful in making these foods, but it is also beneficial to the consumer because of its high protein content. Gelatin is also commonly used in the photographic industry and in making medicinal capsules.

The process for producing gelatin is a long and complex one. In the processing of gelatin made from bones (which varies slightly form that of gelatin made from skin), the grease first must be eliminated. Then the bones are soaked in a solution of hydrochloric acid in order to rid them of minerals and washed serval times in water. Next, the bones are placed in distilled water, heated to over 90oF for a few hours, placed in fresh distilled water, and then heated again at a little over 100oF. A fluid forms from this heating, and it is concentrated, chilled, and sliced. Finally, it is dried and ground. In its final form, gelatin is white, tasteless, and odorless.

58. It can be inferred from this reading passage that

- (A)One could easily make gelatin at home
- (B) It is necessary to add minerals to the gelatin
- (C) Fat aids in making good gelatin
- (D)Gelatin is useful for elderly and ill people because it is easy to chew and high in protein

- 59. Which of the following is true?
  - (A)Gelatin made from skin is produced in the same way as that made from bones.
  - (B) Grease probably does not aid in producing gelatin
  - (C) The chemical used in making gelatin comes off the surface of the bones by rinsing with water
  - (D) When the gelatin is dried, it is in powder form.
- 60. Which of the following would be the best title for this passage?

(A) The Process of Making Gelatin

- (B) Protein Foods
- (C) Uses for Bones
- (D)A Great Dessert