

**السؤال الأول: أكتب المصطلح الإقتصادي الدال على العبارات التالية (١٠ درجة)**

- (١) التغير النسبي في الكمية المطلوبة من سلعة معينة نتيجة حدوث تغير نسبي في سعرها.
- (٢) الجزء الذي يتم الامتناع عن استهلاكه مما تم إنتاجه وهو أمر ضروري ولازم لإنتاج المزيد من السلع.
- (٣) الجزء المدفوع الذي يعمل من أجل استعمال الأرض هو الذي يكون ريعاً اقتصادياً ، أما المبلغ الكلي المدفوع بواسطة المستاجر للمالك.
- (٤) مجموع ما يجب أن يقوم المنتج بدفعة من نقود كئمن للموارد المختلفة التي ساهمت في هذا الإنتاج.
- (٥) الفائض الحقيقي الذي يتبقى بعد أن تكون مصاريف الزراعة من مدفوعات العمل ورأس المال والتنظيم قد دفعت.
- (٦) الثمن الذي يدفع مقابل استخدام الأموال القابلة للإقراض.
- (٧) مختلف أوجه الإنفاق والتي تقوم المنشأة بسدادها نقداً أو عيناً وتتضمن قيمة الموارد الخام وأجور العمالة وقيمة الوقود وغير ذلك.
- (٨) مجموعة من منحنيات الناتج المتساوي تناظر مستويات مختلفة من الإنتاج.
- (٩) درجة استجابة الكميات المعروضة من سلعة معينة الي التغير في سعر الوحدة من السلعة.
- (١٠) إجمالي الأموال التي يتحملها المشروع في سبيل اخراج السلعة أو الخدمة الي السوق.

السؤال الثاني:- ضع علامة صح امام العبارة الصحيحة وعلامة خطأ امام العبارة الخاطئة (١٠ درجة)

- () (١) يكون الطلب غير مرن إذا كان التغير النسبي في الكمية المطلوبة اقل من التغير النسبي في السعر
- () (٢) من خصائص الحاجات البشرية عدم قابليتها للقياس
- () (٣) الرقابة علي النظام الإقتصادي بواسطة جهاز الأسعار من سمات النظام الاشتراكي
- () (٤) الطلب علي السلعة يتناقص عند نفس السعر بسبب ارتفاع السلع البديلة
- () (٥) من معايير الاستثمار والمفاضلة بين المشروعات الاستثمارية السمكية معيار النقد الأجنبي
- () (٦) لا يمكن ان يكون الناتج الحدي سالباً
- () (٧) تقتصر اهتمامات التقييم المالي للمشروع علي عناصر الإيرادات والتكاليف علي مستوي المشروع
- () (٨) ينطبق قانون تناقص الغلة في حالة الإبقاء علي واحد أو الأقل من العناصر الانتاجية متغيراً
- () (٩) عندما تصل المنفعة الكلية لأقصاها فإن المنفعة الحدية تساوي صفراً
- () (١٠) عندما يكون الناتج الكلي متناقص يكون الناتج المتوسط سالب

السؤال الثالث:- اختر الإجابة الصحيحة (١٠ درجة)

- (١) إذا كانت التكاليف المتوسطة = ٨ والتكاليف الحدية = ١٢ معني ذلك ان مرونة التكاليف
أ- أكبر من الواحد ب- أقل من الواحد ج- تساوي الواحد د- تساوي صفر
- (٢) من العوامل التي تؤثر علي العرض الفردي
أ- التقدم التكنولوجي ج- أسعار عناصر الانتاج
ب- سعر السلعة التي ينتجها المشروع د- جميع ما سبق
- (٣) مزارع استخدم ٧ وحدات من السماد الأزوتي حيث الناتج الحدي = ٧ والناتج المتوسط = ٥ المزارع في هذه الحالة يعمل في نطاق
أ- المرحلة الأولى للانتاج ب- المرحلة الثانية للانتاج ج- المرحلة الثالثة للانتاج

- ٤) إذا كانت التكاليف المتوسطة = ١٢ والتكاليف الحدية = ٨ معني ذلك ان مرونة التكاليف
- أ- أكبر من الواحد ب- اقل من الواحد ج- تساوي الواحد د- تساوي صفر
- ٥) من معايير الاستثمار والمفاضلة بين المشروعات الاستثمارية الزراعية
- أ- تراكم رأس المال ج - الربحية التجارية
- ب- كثافة رأس المال بالنسبة للإنتاج د- جميع ما سبق
- ٦) الطلب علي السلعة ينخفض عند نفس الثمن بسبب
- أ- ثبات ب إرتفاع ج- إنخفاض
- ٧) إذا كان الناتج الحدي = ١٢ والناتج المتوسط = ١٠ معني ذلك أن مرونة الإنتاج
- أ- تساوي صفر ب- اقل من الواحد ج- تساوي الواحد د- اكبر من الواحد
- ٨) الطلب علي السلعة يزداد عند نفس الثمن بسبب
- أ- ثبات ب إرتفاع ج- إنخفاض
- ٩) تقيس مرونة الطلب التقاطعية أثر التغير في سعر سلعة ما علي :
- أ- الكمية المطلوبة من سلعة أخرى . ج- الكمية المطلوبة من نفس السلعة .
- ب- الكمية المطلوبة من كل السلع . د- الكمية المطلوبة من سلعتين معاً .
- ١٠) إذا كانت مرونة الطلب علي الجمبري أكبر من الواحد فإن الكمية المطلوبة منها تتغير بمستوي أكبر من التغير في سعرها ويسمي الطلب هنا بطلب :
- أ- عديم المرونة ب- مرن نسبياً ج- ضعيف المرونة د- لا شئ مما

(٢٠ درجة)

السؤال الرابع :-

أ- ارسم فقط ما يلي :-

- ١) حالات مرونة الطلب .
- ٢) مراحل الإنتاج وفقاً لقانون تناقص الغلة .
- ٣) أثر التكنولوجي علي منحنى الناتج الكلي والحددي والمتوسط .
- ٤) توازن المستهلك باستخدام منحنيات السواء .

ب- اكمل الجدول التالي :-

| ص | ت ك | ت ث | ت م | م ت ث | م ت م | م ت ك | ت ح | م ت |
|---|-----|-----|-----|-------|-------|-------|-----|-----|
| ١ | | ١٠٠ | | | | | ٣٠ | |
| ٢ | ١٤٥ | | | | | | | |
| ٣ | | | | | | | ١٠ | |
| ٤ | | | | ٢٥ | | | | |
| ٥ | | | | | | ٣٣ | | |

مع أطيب التمنيات بالنجاح والتفوق

شكراً



Q1: Give reason (s) for each of the followings: (20 degree)

- 1- The lobster is bilateral symmetrical invertebrates.
- 2- The female artemia can maintain the reproduction in low O₂ level.
- 3- Clitellum is important organ in reproduction of the earth worm.
- 4- The shell plates of chitons are articulate with each other.
- 5- The water vascular system is essential for sea star.

Q2: Find the incorrect word in each statement and complete the table in the answer sheet: (20 degree)

- 1- The Bivalves have a tongue like structure called radula.
- 2- Auto-fertilization is a common type of the sexual reproduction on sponges.
- 3- The jelly fish can reproduce asexually by fragmentation.
- 4- The legs of lobster are adapted for swimming.
- 5- The heterotrophic protozoa can make its own food.
- 6- Bdelloidea is a type of artemia, can reproduce by parthenogenesis.
- 7- The hemolymph of shrimp is circulating through arteries.
- 8- The cnidarian larvae reproduce asexually by sporulation to form polyp.
- 9- Pinocytosis is a process by which the protozoa engulf a large food particle.
- 10- When the egg of chitons hatches, it gives free swimming cercaria.

| | In correct word | Correct word | | Incorrect word | correct word |
|---|-----------------|--------------|----|----------------|--------------|
| 1 | | | 6 | | |
| 2 | | | 7 | | |
| 3 | | | 8 | | |
| 4 | | | 9 | | |
| 5 | | | 10 | | |

Q3- Complete the following sentences: (10 degree)

- 1- The water enters the sponges through minute pores called a-..... and then directed to b-..... from where it goes out through c-..... This pathway of water transport is helpful in d-, e-.....and f-.....
- 2- The cross- fertilization is a type of a sexual reproduction more common on some invertebrates as and
- 3- The protozoa can reproduce sexually by and

GOOD LUCK

- (b) The probability that a patient recovers from a rare blood disease is 0.8
 If 11 people are known to have contracted this disease, what is the probability that: (i) exactly one survive. (ii) between one and ten inclusive survive.
 (iii) at most nine survive.

- (c) The time it takes a cell to divide (called mitosis) is normally distributed with an average time of 30 minutes and a standard deviation of 6 minutes
 (i) What is the probability that a cell divides in more than 33 minutes.
 (ii) What is the probability that a cell takes between 27 and 33 minutes to divide.

| z | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 |
|-----|--------|--------|--------|--------|--------|--------|
| 0.4 | 0.6554 | 0.6591 | 0.6628 | 0.6664 | 0.6700 | 0.6736 |
| 0.5 | 0.6915 | 0.6950 | 0.6985 | 0.7019 | 0.7054 | 0.7088 |

- (3)(a) If X is a random variable which is Binomially distributed with $p = 0.2$ and $f(1)=0.41$ find the value of n such that $P(X > 1) = 0.19$ then find $\text{Var}(X)$.
 (b) A random variable X takes the values 2, 4, 6, 8, 10 where $P(X=8) = 0.2$ and $E(X)=6$. Find (i) $P(X=4)$ (ii) $\text{Var}(X)$ (iii) $P(2 \leq X \leq 8)$
 (c) Complete the following:
 (i) What would happen to the variance of a data if we multiplied every value by 2.
 The variance of new values equal
- (ii) In binomial distribution if $n=8$ and $p=0.6$, then the value of $P(X=9)$ is
- (iii) The variance of the binomial distribution is always the mean
- (iv) The data presented in the form of frequency data is known as
- (v) If C is a constant and X is a continuous random variable. Then $P(X=C)=...$

Best Wishes, M.M.Khalifa



1-Complete the following:

[16 Marks]

- 1) Prokaryotes include a-b-.....
- 2) Sexual spores of fungi include a-.....b-.....c-
- 3) Virion consist of a-b-.....c-.....
- 5) Factors affecting the Virulence include a-..... b-.....c-d-.....
- 6) According to the Oxygen requirements bacteria could be classified in to a-.....
.... b-.....c-d-.....

2 - Mark the following sentences with (√) or (×) and correct the wrong

[14 Marks]

- 1) Phycology science is a Branch of Pure Microbiology studies fungi.
- 2) Algae are organisms in Monera kingdom .
- 3) The Cell wall presents in all bacterial cells and Composed mainly of polysaccharide.
- 4) Pathogenicity is the qualitative ability of the microorganism species to cause a disease.
- 5) Radiation do not affect Viruses.
- 6) The intracytoplasmic inclusion bodies are not permanent structures of the bacterial cell .
- 7) The Bacteriophages (virus) Lysogenic cycle ends with the host bacterial cell lysis and death.



Kafrelsheikh University Date: 16 - 1 - 2022
 Faculty of Aquatic and Fisheries Sciences
 Subject: Descriptive statistics Full Mark (50)

Time allowed: 2h
 First Level
 Final Exam: 2 pages

Answer the following questions:

(1)(a) The following table shows how 8 students were ranked according to their achievements in both the laboratory(x) and lecture(y) portions of biology course.

| | | | | | | | | |
|---|---|---|---|---|---|---|----|----|
| x | 1 | 3 | 4 | 6 | 8 | 9 | 11 | 14 |
| y | 1 | 2 | 4 | 4 | 5 | 7 | 8 | 9 |

- (i) Calculate the correlation coefficient.
- (ii) Test the significance of the correlation coefficient given that $\alpha=0.05$
- (iii) Find the value of y when x = 10.

| | t-test values | | | | | | | | | |
|--------------------|---------------|-----|------|------|------|------|------|------|------|------|
| Degrees of freedom | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| $\alpha = 0.05$ | 12.7 | 4.3 | 3.18 | 2.78 | 2.57 | 2.45 | 2.36 | 2.31 | 2.26 | 2.23 |

(b) Pollution of the rivers has been a problem for many years. Consider the following random events:

- A: the river is polluted,
- B: a sample of water tested detects pollution,
- C: fishing is permitted.

Assume $P(C) = 0.3$, $P(A|C) = 0.75$, $P(A|\bar{C}) = 0.2$, $P(B|C) = 0.4$, $P(B|\bar{C}) = 0.31$

Find (i) the probability that the river is polluted or fishing is permitted or both.

(ii) the probability that a sample of water tested not detect pollution

(c) Let A, B and C be three random events in a sample space. Assuming that the following inequalities hold: $P(B|A) \geq P(C|A)$ and $P(B|\bar{A}) \geq P(C|\bar{A})$ show that $P(B) \geq P(C)$.

(2)(a) If X is a random variable which has the probability function

| | | | | | |
|------|-----|-----|-----|-----|-----|
| x | c | 2 | 3 | 4 | 5 |
| f(x) | 0.2 | 0.1 | 0.3 | 0.1 | 0.3 |

and $E(X^2) = 12.2$

- Find (i) the constant c
- (ii) $F(x)$
- (iii) $E((X+1)^2)$
- (iv) $\text{Var}(-2X-3)$

Final exam during academic year 2021/2022

Please answer the following questions: (50 marks).

❖ **First question: Complete the following sentences (15marks):**

- 1) In Silurian Period fish species not exceeding in length to
- 2) Family Jeraptolita and Altreubita arrived to the maximum stages of their development in the Period
- 3) First ring relocating among vertebrates and invertebrates like
- 4) Fish meal made from
- 5) For practical demonstration in zoological laboratories fishes like are used in dissection.
- 6) The top country importers seafood includes the, followed by
- 7) Most fish supplied by aquaculture were fish species.
- 8) In Asia the bulk of aquatic food products are derived from the rapidly growingsector.
- 9)is the largest exporter of fish and fishery products.
- 10) In the medium to long term, the major challenge facing marine fisheries is
- 11) The Arab States combined have more than km of shoreline.
- 12) The Arab States have access to two major oceans, and
- 13) Fish landings by the countries in Fishing Area 37 are generally
- 14) In Intermediate fisheries mostly targetingspecies, such as
- 15) Only% of all Earth's water is freshwater.

❖ **Second question: Put a (✓) or (X) mark in front of the following statements with correction the wrong sentence (20 marks):**

- 1- Fish were the first vertebrates to appear. ().
- 2- Most fish can smell and taste very well. ().
- 3- Among marine food fishes salmon, tuna, catfish. ().
- 4- All the bony fishes are harmful to the marine life. ().
- 5- Two billion people in the world suffer from specific dietary micronutrient deficiencies ().
- 6- Aquaculture currently supplies 42.2% of the total global production ().
- 7- Aquatic animal foods have lower protein content on fresh weight basis. ().
- 8- Aquatic animal food products are a richer source of vitamins than terrestrial meats ().
- 9- Fish, being a "rich food for rich people ().
- 10- Aquaculture is often easier to manage than capture fisheries ().
- 11- The vast majority of African aquaculture takes place at a large scale ().
- 12- USA is the largest market for imported fish and fishery products ().
- 13- The overall resources of the Arab region in general constitute a small part in the international fisheries scene ().
- 14- Total Arab fish landings from capture about 30 % and aquaculture about 70 % ().
- 15- In small-scale fisheries is characterized by a fleet of big motorized ().
- 16- Fish consumption is highest in the coastal Arab countries ().
- 17- Almost all Earth's water is fresh water ().
- 18- Lotic water systems are characterized by stagnant water ().
- 19- Most of the world's wild fisheries are in the rivers ().
- 20- The Indian Ocean is the third largest ocean ().

❖ **Third question : Writing about: (9 marks).**

- A) What are the risks and benefits of fish consumption?
- B) Fisheries sector contribution to achieve universal primary education (Explain)?
- C) What are the greatest threats to the sustainability of inland fishery resources?

❖ **Fourth question (6 marks): Explained by only drawing with writing data.**

- 1- Fish waste relationship with different organisms.
- 2- World capture fisheries and aquaculture production (FAO,2020)

With my best wishes
Prof. Dr. Malik M. Khalafalla



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[16 Marks]

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2 - Mark the following sentences with (√) or (×) and correct the wrong

[14 Marks]

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- 7) The Bacteriophages (virus) Lysogenic cycle ends with the host bacterial cell lysis and death.

3 -Choose the correct answer:

[20 Marks]

- 1) Organisms contain chitin or cellulose in their cell wall are.....
(Viruses – Archaea – Fungi).
- 2) Microbes that have a single circular double stranded Chromosome of (DNA),
supercoiled but no histones are..... (Bacteria - Viruses – Fungi).
- 3) Methanogens are..... (Fungi – Archaea- Bacteria).
- 4) Ribosomes are part of the Bacterial.....
.....(Appendages - Cell envelope – Protoplasm).
- 5) H antigens help in bacterial identification are the
..... (Flagellar – Capsular- Cell wall) antigens.
- 6) Bacterial Sporulation or exotoxins are produced in..... (Lag - Log – Stationary)
phase.
- 7) Endospores could be
.....(Inorganic and organic -Terminal and central - Positive and negative).
- 8) Jumping genes and carry genes of especial functions
.....(Transposons - Nucleoid-
Pili).
- 9) Transduction is a method of bacterial (Staining - Gene transfer – Respiration).
- 10) Imperfect fungi reproduce only by.....(Sexual- Asexual – dead) spores.

WITH MY BEST WISHES

DR. AMANY DIAB

| - 5 - Y



Answer the following questions:

I- Write a PARAGRAPH on ONE of the Following Topics:

(10 Marks)

1. Coronavirus 2. Healthy Food 3. Online education 4. Your favorite book

(30 Marks)

II- Choose the correct answer:

- What is the main difference between organic and non-organic food?
a) use of pesticides b) size of the company c) location of the farm
- Processed foods are nearly always _____ fresh or unprocessed foods.
a) healthier than b) unhealthier than c) as healthy as
- The noun.....refers to the amount or number of products ready to be sold.
a) demand b) need c) supply
- The term an ingredient that is sometimes added to a vaccine to trigger a stronger immune response.
a) adjuvant b) antibody c) glucose
- The noun..... any health problem that happens after vaccination.
a) reversal b) adverse event c) dose
- An..... is part of a pathogen that triggers an immune response in the body, including the production of antibodies.
a) vaccine b) antibody c) antigen
- The noun.....refers to misinformation that is deliberately misleading and intended to deceive.
a) disinformation b) media c) communication
- Which is a virus?
a) COVID-19 b) coronavirus c) influenza
- Which is a disease?
a) coronavirus b) SARS-CoV-2 c) COVID-19
- SARS-CoV-2 can.....humans.
a) infect b) effect c) defect
- Which is most widespread?
a) an outbreak b) a pandemic c) an epidemic
- The word *quarantine* comes from
a) the fraction quarter b) the term guarantee c) the number 40
- The verb.....means to provide money or a budget for something.
a) fund b) find c) found

14. The meaning of the adjective.....is likely to cause health problems.

- a) **useful** b) **hazardous** c) **contaminating**

15. The noun.....refers to a group of cells in the body that work together.

- a) **organ** b) **blood** c) **tissue**

III- True or False (are the following sentences grammatically correct or not?):

(10 Marks)

1. Jane does not drink tea very often.
2. What time does the banks open in Britain?
3. Where does John come from?
4. It take me an hour to get to work.
5. She does not wake up early on Sundays.
6. She bringed some chocolates to the party yesterday.
7. I heard a new song on the radio last night.
8. I read three books last week.
9. He understand during the class, but now he doesn't understand.
10. You lost your keys last week.

IV- Translate the following passage into Arabic:

(10 Marks)

Is organic food safer and more **nutritious**? This is an important part of the **debate**. Many farmers and **consumers** believe it is. They think agricultural chemicals can cause serious illnesses like cancer, but there isn't much **evidence** proving this is true. However recent studies have shown that eating organically-grown **produce** reduces your chances of developing heart disease...Most people agree that naturally grown food tastes better. Is tastier food worth the extra money? That's a matter of opinion. Whether organic food is healthier or not is still not clear, so more research is needed. However, consumers of organic food often say "**better safe than sorry**" when it comes to what we eat.

Best Wishes!

Dr. Muhammad Q. Aql