

- c. Less trained workers
- d. All of the above

14. A work group of 5 workers in a certain month produced 500 units of output working 8 hr/day for 22 days in the month. Suppose that in the next month, the same work group produced 600 units but there were only 20 workdays in the month. What is the productivity index using the prior month as a base.

- a. 0.568
- b. 0.75
- c. 1.32
- d. 1.65

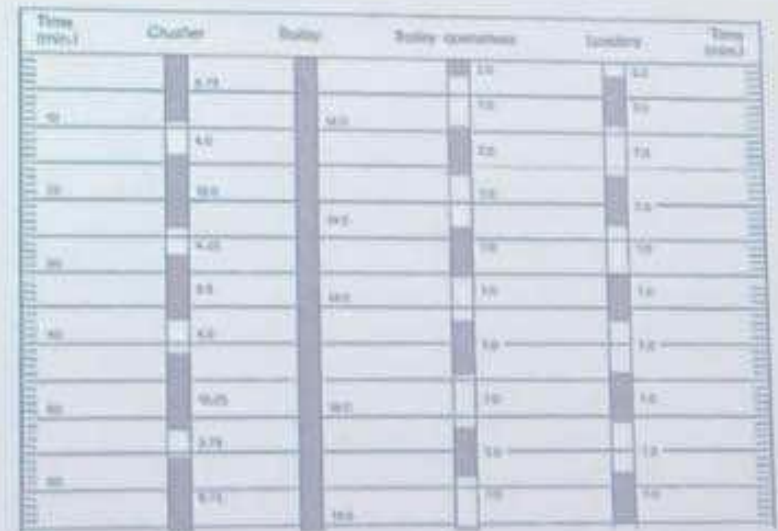
15. In a recent month, a car manufacturing company has produced 300 cars with 5,000 total hours of work. The company's productivity ratio for this month is:

كلية الهندسة  
الوحدة العقلية تحت جهاز العرض لوح الـ LCD  
عدم الكتابة عليه باللام القابلة للمسح والمستخدم  
للتم التعليمي  
تحت دائرة المسؤولية  
على أن لوح العرض هو لوح عادي ويمكن الكتابة  
عليه بالاقلام العادية  
إدارة الكلية للهندسة  
الجامعة العراقية  
الكلية الهندسية

- b. Supplier and Customer
- c. Time and distance
- d. A and B

10. The following chart is:

- a. Right hand-left hand activity chart
- b. Worker-multimachine activity chart
- c. Workplace activity chart
- d. Worker-multimachine process map



11. Last year, the annual demand for a certain piece of merchandise that is inventoried at a department store warehouse was 13,688 units. The annual

10	10.25	10.5	10.75	11
20	10.5	10.75	11	11.25
30	10.75	11	11.25	11.5
40	11	11.25	11.5	11.75
50	11.25	11.5	11.75	12
60	11.5	11.75	12	12.25
70	11.75	12	12.25	12.5
80	12	12.25	12.5	12.75
90	12.25	12.5	12.75	13
100	12.5	12.75	13	13.25

11. Last year, the annual demand for a certain piece of merchandise that is inventoried at a department store warehouse was 13,688 units. The annual demand is expected to increase 10% in the next year. One unit of the product costs \$8.75, and the selling price is \$19.95. The holding cost rate is 15%/yr. The cost to place an order for the merchandise is figured at \$65. The economic order quantity for this case is:

- A. 1221 pc
- B. 1165 pc
- C. 1300 pc

8. Which of the following are traditional industrial engineering charts?

- a. Network diagram
- b. Process map
- c. Activity charts
- d. All of the above

9. Relationship maps are used for connecting:

- a. Input and output
- b. Supplier and Customer
- c. Time and distance
- d. A and B

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The University of Jordan



الجامعة الأردنية

by this factory. What is the maximum number of arrows possible in the network diagram?

- A. 6
- B. 3
- C. 2

7. A supplier of machined components for industrial machinery (e.g., power tools, pumps, motors, compressors) operates a factory that includes a forge shop, machine shop, and finishing department. Many of the parts produced by the company are fabricated going back and forth through these three departments. Assume you want to draw a network diagram for parts produced

نموذج للورقة الأولى للاختبارات المقابلة

QF-KASIT-04.01.1.2



network diagram?

- A. 6
- B. 3
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- d. A and B

- c. Gravity drop chutes should be used for completed work units where appropriate.
- d. Gravity feed bins should be used to deliver small parts and fasteners.

5. Which of the principles of motion economy are violated in the next work description

"Charles Dickens was working well into the night, writing with his quill on one piece of paper after the next. Sitting on his sofa writing on the coffee table with lone candle in front of him on the desk."

- a. Work automation, tools convenient and comfort, adequate illumination, proper chair/table
- b. Multiple operations performed simultaneously, tools convenient and comfort, adequate illumination, proper chair/table
- c. Multiple operations performed simultaneously, work automation, adequate illumination, proper chair/table
- d. Multiple operations performed simultaneously, tools convenient and comfort, adequate illumination



- b. Multiple operations performed simultaneously, tools convenient and comfort, adequate illumination, proper chair/table
- c. Multiple operations performed simultaneously, work automation, adequate illumination, proper chair/table
- d. Multiple operations performed simultaneously, tools convenient and comfort, adequate illumination

6. What are the four methods indicated in the text by which the analyst develops a description of the work process that is ultimately used to create the graphic?

- a. The analyst is intimately familiar with the process.
- b. The analyst observes and records information about the process.
- c. One-on-one interviews of those familiar with the process.
- d. All of the above

7. A supplier of machined <sup>1</sup>components for industrial machinery (e.g., power tools, pumps, motors, compressors) operates a factory that includes a forge shop, machine shop, and finishing department. Many of the parts produced by the company are fabricated going back and forth through these three departments. Assume you want to draw a network diagram for parts produced

in his tool kit, pushing around a few other tools before grasping the wrench and picking it up. The list of the therbligs that comprise this motion sequence is:

- a. Transport empty, search, select, grasp
- b. Transport empty, search, grasp
- c. Transport empty, select, grasp
- d. Transport empty, plan, select, grasp

2. One example on ineffective physical and mental basic motion element

- a. Hold
- b. Plan
- c. Search
- d. Use

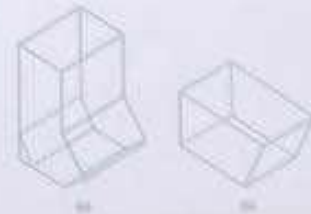
3. What is the lowest classification of hand and arm motions?

من لوح ذكر، الرجاء  
العادية واستخدام  
من  
بواسطة  
الذي ويمكن الكتابة  
تاريخية  
بالتعاون مع الشؤون الهندسية  
في 14/10/2017



4. Which of the following motion economy principles does this picture satisfy?

- a. The method should consist of smooth continuous curved motions rather than straight-line motions with abrupt changes in direction.
- b. Momentum should be used to facilitate the task wherever possible
- c. Gravity drop chutes should be used for completed work units where appropriate.
- d. Gravity feed bins should be used to deliver small parts and fasteners.



5. Which of the principles of motion economy are violated in the next work

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المكتبة  
والعرض لوح ذي الرجاء  
الروح العادية واستخدام  
مخصص  
المسؤولية  
نوع غادي ويمكن الكتابة  
لام العادية  
المسؤولية  
المسؤولية

8

Total

1

1. The plumber, kneeling on the floor next to the sink, reached for the monkey wrench in his tool kit, pushing around a few other tools before grasping the wrench and picking it up. The list of the therbligs that comprise this motion sequence is:

- a. Transport empty, search, select, grasp
- b. Transport empty, search, grasp
- c. Transport empty, select, grasp
- d. Transport empty, plan, select, grasp

2. One example on ineffective physical and mental basic motion element

مكتبة  
العرض لوح ذكي، الرجاء  
موج العائبة واستخدام  
مفتوح  
مسؤولية  
مع عادي ويمكن الكتابة  
العائبة  
بالتوازي مع العنصرين الأخرين  
البريد الإلكتروني

12. Five parts (A, B, C, D, and E) are processed through a sequence of five operations (1, 2, 3, 4, and 5). Not all parts are processed in all operations. Part A, which has daily quantities of 50 units, is processed through operations 1, 3, 5, and 1 in that order. Part B, which has daily quantities of 70 units, is processed through operations 2, 4, and 5 in that order. Part C, which has daily quantities of 25 units, is processed through operations 3, 2, and 4 in that order. Part D, which has daily quantities of 10 units, is processed through operations 1, 2, 4, and 5 in that order. Finally, part E, which has daily quantities of 15 units, is processed through operations 3, 1, and 2 in that order.

According to Hollier method, the most logical in-line sequence of work stations in the work system is:

- a. 2-3-1-4-5
- b. 1-4-5-2-3
- c. 2-5-3-1-4
- d. 4-2-3-5-1