

تعداد سؤال: نسی: ۲۶ تکمیلی: — تشریحی: —
زمان آزمون (دقیقه): تستی و تکمیلی: ۷۵ تشریحی: —

نام درس: زبان تخصصی
رشته تحصیلی: گرایش: مهندسی صنایع
کد درس: ۱۲۱۲۱۶۲

* دانشجوی گرامی: لطفاً، گزینه ۱ را در قسمت کد سری سؤال برگه پاسخنامه خود، علامت بزنید. بدیهی است، مسئولیت این امر برعهده شما خواهد بود.
*این آزمون نمره منفی ندارد.

Fin the blanks with the appropriate form of the words given:

- Storing information processing systems means holding data temporarily or permanently.
a. summarizing b. to summarize c. summarized d. summarize
- A system is an of facts, principles or doctrines in a particular find of knowledge.
a. assembling b. assemblage c. assembled d. assemble
- In industrial engineering, building can be designed the most desirable layout.
a. to accommodate b. accommodation c. accommodating d. accommodated.
- Qualified have good salesmen, information on clients, and efficient advertising system
a. suppliers b. supplies c. supplying d. supplied
- In many industrial systems, the proper scheduling of the facilities can lead to betterof existing capacity.
a. utilized b. utilization c. utilize d. utilizing

•Read the following text then answer the questions.

The origin of systems gives a more important classification opportunity. Natural systems are those which came on to being by natural processes. Man-made systems are those in which human beings have intervened through components, attributes, or relationships. Important interfaces often exist between man-made systems and natural systems. Natural systems exhibit a high degree of order and equilibrium. This is evidenced in seasons, the food chain, the water cycle, and so on. Organisms and plant life adapt themselves to maintain equilibrium with the environment. Every event in nature is accompanied by an appropriate adaptation, one of the most important being that material flows are cyclic. In the natural environment there are no dead ends, no wastes, only continual recirculation.

تعداد سوال: نسی: ۲۶ تکمیلی: — تشریحی: —
زمان آزمون (دقیقه): تستی و تکمیلی: ۷۵ تشریحی: —

نام درس: زبان تخصصی
رشته تحصیلی: گرایش: مهندسی صنایع
کد درس: ۱۲۱۲۱۶۲

Only recently have significant man-made systems appeared. These systems make up the man-made world, their chief engineer being human. The rapid evaluation of human beings is not adequately understood, but their coming upon the scene has significantly affected the natural world, often in undesirable ways.

• Now choose a, b, c or d which best completes each item.

6. The high degree of order and equilibrium of the natural systems may exhibit in

- | | |
|------------------------|------------------------|
| a. the seasons systems | b. production planning |
| c. constructing a dam | d. accounting process |

7. In the food chain system there is

- | | |
|-------------|------------------------------|
| a. dead end | b. a continual recirculation |
| c. waste | d. none of the above words |

8. In a dam construction system, the chief engineer is

- | | |
|------------------|------------------------|
| a. natural world | b. natural environment |
| c. human beings | d. equipment |

9..exist between the man-made and natural systems.

- | | | | |
|-----------------|--------------|-----------------|------------------------|
| a. no interface | b. no effect | c. small effect | d. important interface |
|-----------------|--------------|-----------------|------------------------|

10. The effect of man-made systems on the natural systems in the past wasnow.

- | | | | |
|--------------|--------------|---------------|----------------------|
| a. more than | b. less than | c. as same as | d. more rapidly than |
|--------------|--------------|---------------|----------------------|

• Choose the Persian equivalents of the following terms and expressions

11. optimization

- | | | | |
|---------------|------------|---------------|--------------|
| الف. تقصد یصق | ب. استفاده | ج. بهینه سازی | د. زمان بندی |
|---------------|------------|---------------|--------------|

12. overlapping

- | | | | |
|-----------------|----------|----------|-----------------------|
| الف. فهم پوشانی | ب. ارتقا | ج. برتری | د. تولید بیش از ظرفیت |
|-----------------|----------|----------|-----------------------|



تعداد سوال: نهمي: ۲۶ تکميلي: — تشريحي: —

زمان آزمون (دقيقه): تستي و تکميلي: ۷۵ تشريحي: —

نام درس: زبان تخصصي

رشته تحصيلي: گرايش: مهندسي صنايع

کد درس: ۱۲۱۲۱۶۲

13. hierarchy

د. سلسله مراتب

ج. فرآيند

ب. رتبه

الف. زنجيره

14. flexible manufacturing systems

ب. سيستم هاي توليدي انعطاف پذير .

الف. سيستم هاي توليدي غير پويا

د. سيستم هاي توليدي پويا

ج. سيستم هاي توليدي سريع

15. prototype

د. مزيت

ج. نمونه

ب. بهره وري

الف. رقابت

• Choose the English equivalents of the following terms and expressions

۱۷. ي ر

a. progressive

b. conservative

c. heuristic

d. intermittent

۱۸. مصلحي ع

a. synthetic

b. analytic

c. galactic

d. none of them

۱۹. تكامل يافتن

a. to involve

b. to evaluate

c. to evolve

d. to integrate

۲۰. باؤد. ه

a. input

b. output

c. throughout

d. effectiveness

۲۱. بهره وري ر

a. optimization

b. efficiency

c. productivity

d. promotion

تعداد سوال: نسی: ۲۶ تکمیلی: — تشریحی: —
زمان آزمون (دقیقه): تستی و تکمیلی: ۷۵ تشریحی: —

نام درس: زبان تخصصی
رشته تحصیلی: گرایش: مهندسی صنایع
کد درس: ۱۲۱۲۱۶۲

Read the following text and the answer the questions.

Optimization problems may be classified based on the nature of the objective function and the system constraints. These problems are classified on the basis of whether or not they involve constraints on the decision variables. The unconstrained problems are easier to solve than the constrained one. The unconstrained problems are further classified based on the weather the objective function involves one or several design variables. Basically there are two important classes of methods for solving the unconstrained problems. The direct search methods require only that the objective function be evaluated at different points, at least through experimentation. Gradient –based methods require the analytical form of the objective function and its derivatives. An important class of constrained optimization problem is linear programming which requires both the objective function and the constraints to be linear functions. Out of all optimization models, linear programming models are the most widely used and accepted in practice. The next class of optimization problems involve nonlinear objective functions and linear constraints. Under this class, quadratic programming, convex programming and linear fractional programming are defined. The most general optimization problems involve the nonlinear objective functions and none linear constraints and are generally grouped under the term “nonlinear programming”.

21. Which sentence is true?

- a. When the objective function is nonlinear, the optimization problem is nonlinear programming.
- b. Quadratic programming is a kind of the nonlinear programming.
- c. When both the constraints and the objective function are nonlinear, the optimization problem is a nonlinear programming.
- d. Most of the engineering design problems are linear programming.

تعداد سوال: نسی: ۲۶ تکمیلی: — تشریحی: —
زمان آزمون (دقیقه): تستی و تکمیلی: ۷۵ تشریحی: —

نام درس: زبان تخصصی
رشته تحصیلی: گرایش: مهندسی صنایع
کد درس: ۱۲۱۲۱۶۲

22. Which sentence is true?

- a. Gradient- based method is a kind of linear programming methods.
- b. Gradient- based method is a kind of solving method for constrained problems.
- c. Experimentation is one of the most important parts of the constrained optimization problems.
- d. The unconstrained problems are divided to problems with single and several variables.

23. Which sentence is true?

- a. Linear fractional programming is a kind of linear programming problems.
- b. None linear programming is the most general kind of optimization problems. .
- c. In direct search method, the objective function can be evaluated at one point.
- d. The constrained problems are easier to solve than unconstrained problems. .

24. Which sentence is false?

- a. Linear programming is the most accepted model to practice. .
- b. Convex programming is a kind of nonlinear programming methods.
- c. The direct search method is a kind of unconstrained optimization problems.
- d. Constrained problems are classified to linear and nonlinear constrained problems

25. Which sentence is false?

- a. Optimization problems are classified to the constrained and unconstrained problems. .
- b. In linear fractional problems, the objective function is linear while the constraints are nonlinear.
- c. Linear programming problems are easier to solve than nonlinear ones. .
- d. Gradient –based methods require the analytical form of the objective function and its derivatives.



تعداد سؤال: نسی: ۲۶ تکمیلی: — تشریحی: —
زمان آزمون (دقیقه): تستی و تکمیلی: ۷۵ تشریحی: —

نام درس: زبان تخصصی
رشته تحصیلی: گرایش: مهندسی صنایع
کد درس: ۱۲۱۲۱۶۲

26. Which is the right order of the following systems to form a paragraph?

- I) These changes have been modeled by the growing body of knowledge about the behavioral aspects of work design and an intensification in the application of quantitative analytical method .
- II) The emergence of an increasingly sophisticated managerial clientele has in itself been a prime factor in restructuring of industrial engineering staff.
- III) Another powerful force in shaping the changing role of the industrial engineer is the widening scope of activities that brought the industrial engineer out of the factory into none manufacturing organizations.
- IV) There have been significant changes during recent years in the functions assigned to the industrial engineering staff.
- a. I-II- III- IV b. IV-I-II-III c. II- IV-III-I d. II- III-IV-I

سلامتی و تعجیل در فرج آقا امام زمان (عج) صلوات

