

نام درس: زبان تخصصی
رشته تحصیلی: کُد درس: مهندسی صنایع (ستتی و تجميع) ۱۲۱۲۱۶۲ - مهندسی مدیریت اجرایی ۱۲۱۲۱۶۴ زمان آزمون: تستی: ۷۵ تشریحی: -- دقیقه
تعداد سوالات: تستی: ۳۰ تشریحی: --
کُد سری سؤال: یک (۱) استفاده از: -- مجاز است.
آزمون نمره منفی دارد ○ ندارد ⊗

امام علی (ع): شرافت به خرد و ادب است نه به دارایی و نژاد.

Read the following text, and then answer the questions.

The term 'data' and 'information' are sometimes used interchangeably, although some consider them to be different concepts. In general, data are objective, whereas the nature of information is different and exists only when it is relevant to a recipient. Data processing systems are systems that manipulate data to produce other data or information. In such systems different types of operations like recording, classifying, storing, calculating, summarizing, retrieving, reproducing and distributing may be performed. Encoding data on events or transactions by major types is called classifying, while identifying and transcribing data about events or transactions is named recording. When we arrange transaction data and related calculations into report format, we summarize them and when we hold transaction data temporarily or permanently we are storing them. Retrieving data is another performance in which file searching or scanning of stored data is occurred to perform additional calculations or update data on file. Reproducing is another performance in which printing and developing reports are done and finally moving reports to users of information is called distributing.

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

1. Printing reports such as sales performance reports or materials status reports are identified as.....
a. recording b. reproducing c. summarizing d. storing
2. Moving reports to users such as sales performance reports to sales manager is categorized as
a. distributing b. retrieving c. calculating d. summarizing
3. In general data is objective, whereas information is
a. interchangeable b. symbolic c. subjective d. informative
4. Arranging transaction data into report format for example developing a sales performance report for each sales person is called
a. calculating b. storing c. summarizing d. retrieving



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5. When encode data by major types for example material purchases by type of material, wethese data

- a. classify b. store c. summarize d. record

○ **Fill in the blanks with the appropriate form of the words given:**

6. In many industrial systems, the proper scheduling of facilities can lead to better.....of existing facilities.

- a. utilizing b. to utilize. c. utilize d. utilization

7. Qualified have good salesman, information on clients, and effective advertising systems.

- a. supplier b. supply c. supplying d. supplied

8. In industrial engineering, buildings can be designed the most desirable layout.

- a. accommodated b. accommodating c. accommodate d. to accommodate

9. Some machines require services at randomlytimes.

- a. distributing b. distribute c. distributive d. distributed

10. There is a large cost involved in systems..... hardware, software, and data bases.

- a. incorporate b. incorporation c. incorporating d. to incorporate

11- A should provide guidance for a planning activity.

- a. manufacturer b. manufacturing c. manufacture d. manufactured

Read the following text and then answer the questions.

The primary purpose of all optimization studies is not always trying to determine the true optimum operation of the system. In practice, some of the primary benefits are associated with understanding the system under study and describing it quantitatively. An optimization study may identify important variables including controllable and uncontrollable variables in the system. The most permanent contribution of an optimization study may well be qualitative rather than quantitative. Often one may be able to identify the problem without any numerical calculation. Optimization problems may be classified based on the nature of the objective function and the constraints. The unconstrained problems are classified based on whether the objective function involves one or several design variables.

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Obviously, the unconstrained problems are easier than the constrained ones and can be solved by direct search method and gradient-based ones.

The constrained problems also are classified to linear and nonlinear problems. Linear programming problems are the most widely used and accepted in practice. In these kinds of problems both the objectives and constraints are linear. The most general optimization problems involve nonlinear objective functions and nonlinear constraints and generally grouped under the term of nonlinear programming. Unfortunately there is no single method that is best for solving these problems. Some algorithms and methods are used to solve these problems.

12. According to the above text, which sentence is true?

- a. Nonlinear programming is the most widely used and accepted patterns of all optimization methods.
- b. An optimization problem may suggest ways to handle important variables
- c. Linear programming is a kind of the unconstrained optimization problems.
- d. In nonlinear programming, objectives are linear while the constraints are not.

13. According to the above text, which sentence is true?

- a. The most important contribution of an optimization problem may be neither quantitative nor qualitative.
- b. The most general optimization problems are nonlinear programming
- c. An optimization problem can not identify the important variables in a system.
- d. The classification of optimization problems may be based just on the nature of objective functions.

14. According to the above text, which sentence is true?

- a. Optimization problems may primarily be classified on the basis of linearity or nonlinearity of the constraints.
- b. A nonlinear programming involves nonlinear objective functions and nonlinear constraints
- c. Optimization problems may primarily be classified on the basis of linearity or nonlinearity of the objective functions.
- d. The main purpose of all optimization studies is always trying to determine the true minimum or maximum operation of the system.



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15. According to the above text, which sentence is true?

- It is obvious that unconstrained problems are more difficult than constrained ones.
- In industrial engineering, one may be able to identify an optimization problem without numerical calculation.
- Gradient-based methods are be used for solving the linear programming problems.
- The unconstrained problems are classified to linear and nonlinear programming problems.

16. According the above text, which sentence is false?

- the unconstrained problems can be solved by direct search method and gradient- based ones
- The unconstrained problems are classified based on the linearity or nonlinearity of the objective function
- The most permanent contribution of an optimization study may well be qualitative rather than quantitative
- The constrained problems also are classified to linear and nonlinear problems

17. According the above text, which sentence is true?

- There is a single method to solve all the nonlinear problems such as using a defined algorithm.
- An optimization study may identify just controllable variables in the system.
- In practice, some of the primary benefits are associated with understanding the system under study and describing it quantitatively in terms of graphs, tables and mathematical calculations
- Solving the optimization studies does not depend on understanding the system under study.

Choose the Farsi equivalents of the following terms and expressions.

18. quality assurance

- تحليل کیفیت
- تعیین کیفیت
- تضمین کیفیت
- سنجش کیفیت

19. segmenting

- طبقه بندی
- خلاصه سازی
- مسیر یابی
- بررسی و آزمایش

20. layout

- تنظیم
- نصب
- تسهیلات
- چیدمان

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21. overlapping

- a. نمونه سازی b. الگو برداری c. همپوشانی d. فصل مشترک

22. modification

- a. اعمال نیرو b. تعدیل c. تأکید d. تشدید

23. Conceptual systems

- a. سیستم های مفهومی b. مدل های شبیه سازی c. مدل های ریاضی d. سیستم های بهینه سازی

Choose the English equivalents of the following terms and expressions

- a. completion b. implementation c. utilization d. accommodation

۲۴- بهره برداری

- a. integration b. maintenance c. fabrication d. manipulation

۲۵- تعمیرات

- a. trade off b. constraint c. pinpoint d. comment

۲۶- محدودیت

- a. heuristic b. deterministic c. quadratic d. optimistic

۲۷- ابتکاری

- a. cube-like b. triangular c. cylindrical d. prismatic

۲۸- منشوری

- a. milling b. flexibility c. turning d. productivity

۲۹- انعطاف پذیری

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

I) With the process layout, the facilities and equipment are flexible so they can be used on numerous products.

II) A process layout results in machines, equipment, and processes of the same functional type being grouped together.

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III) The location of departments or work centers with a process layout is usually based on minimizing materials handling cost.

IV) Since transportation per se adds no direct value to the product, it can be considered a waste expenditure.

- a. IV- III-I-II b. I-II- III- IV c. II- I-III- IV d. II- III-IV-I



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گد سری سؤال: یک (۱)

استفاده از: --

مجاز است.

شماره سؤال	پاسخ صحیح	وضعیت کلید
۱	ب	عادی
۲	الف	عادی
۳	ج	عادی
۴	ج	عادی
۵	الف	عادی
۶	د	عادی
۷	الف	عادی
۸	د	عادی
۹	د	عادی
۱۰	ج	عادی
۱۱	الف	عادی
۱۲	ب	عادی
۱۳	ب	عادی
۱۴	ب	عادی
۱۵	ب	عادی
۱۶	ب	عادی
۱۷	ج	عادی
۱۸	ج	عادی
۱۹	الف	عادی
۲۰	د	عادی

شماره سؤال	پاسخ صحیح	وضعیت کلید
۲۱	ج	عادی
۲۲	ب	عادی
۲۳	الف	عادی
۲۴	ج	عادی
۲۵	ب	عادی
۲۶	ب	عادی
۲۷	الف	عادی
۲۸	د	عادی
۲۹	ب	عادی
۳۰	ج	عادی



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