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39	A	B	C	D	E

PRACTICE QUESTIONS

Saudi Commission For Health Specialties (SCFHS)

COMED

Preventive Medicine

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Saudi Commission For Health Specialties (SCFHS) **COMED**, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, **COMED**
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1

SINGLE CHOICE

A cohort study is conducted to investigate the association between occupational solvent exposure and chronic kidney disease. Among 1,000 exposed workers, 80 develop the disease over 5 years. Among 2,000 non-exposed workers, 40 develop the disease over the same period. What is the relative risk (RR) of developing chronic kidney disease in the exposed group compared to the non-exposed group?

- ☐ A 1.5
- ☐ B 2.0
- ☒ C 4.0
- ☐ D 0.5

ANSWER C

WHY Incidence in exposed = $80/1000 = 0.08$ (8%). Incidence in non-exposed = $40/2000 = 0.02$ (2%). Relative Risk = Incidence in exposed / Incidence in non-exposed = $0.08 / 0.02 = 4.0$. An RR of 4.0 indicates that exposed individuals are 4 times more likely to develop the disease compared to non-exposed individuals.

QUESTION 2

SINGLE CHOICE

Which of the following criteria by Wilson and Jungner is most critical when deciding whether to screen a population for a particular disease?

- ☐ A The condition should be uncommon in the population
- ☒ B The condition should be an important health problem with a recognizable latent or early symptomatic stage
- ☐ C The screening test should be inexpensive regardless of accuracy
- ☐ D Treatment must be surgical in nature

ANSWER B

WHY According to the WHO Wilson and Jungner criteria for screening, the condition should be an important health problem. Additionally, there should be an accepted treatment, facilities for diagnosis and treatment should be available, and there should be a latent stage of the disease amenable to detection. Screening is typically applied to common conditions where early detection improves outcomes, not uncommon ones.

QUESTION 3 SINGLE CHOICE

A cluster of food poisoning cases is reported following a wedding banquet. The incubation period ranges from 12 to 24 hours, with symptoms of diarrhea and abdominal cramps. Which of the following organisms is most likely responsible?

- ☐ A Staphylococcus aureus
- ☐ B Clostridium botulinum
- ☒ C Salmonella species
- ☐ D Clostridium perfringens

ANSWER C

WHY Salmonella species (non-typhoidal) typically cause food poisoning with an incubation period of 12-72 hours, presenting with diarrhea, fever, and abdominal cramps, commonly associated with poultry, eggs, and dairy products. Staphylococcus aureus has a shorter incubation (1-6 hours). Clostridium botulinum causes neurological symptoms. Clostridium perfringens typically has an 8-16 hour incubation but is more associated with reheated rice or meat dishes.

QUESTION 4 SINGLE CHOICE

According to the WHO global action plan for non-communicable diseases, which of the following is the most effective population-level intervention for reducing cardiovascular disease mortality?

- ☐ A Annual health check-ups for all adults over 40
- ☒ B Population-wide reduction of salt intake through food reformulation policies
- ☐ C Genetic screening programs for familial hypercholesterolemia
- ☐ D Mandatory cardiac stress testing for high-risk occupations

ANSWER B

WHY Population-wide strategies targeting risk factors (tobacco, salt, trans-fat, alcohol, physical inactivity) are more cost-effective and have greater public health impact than individual high-risk approaches. WHO recommends salt reduction as one of the 'best buys' for NCD prevention. Population-level interventions shift the entire risk distribution, benefiting far more people than targeted individual strategies.

QUESTION 5 SINGLE CHOICE

A researcher wants to investigate whether a new vaccine is associated with a rare adverse event. Which study design is most appropriate for detecting rare adverse events following immunization?

- ☐ A Randomized controlled trial
- ☐ B Cross-sectional study
- ☒ C Case-control study
- ☐ D Cohort study

ANSWER C

WHY Case-control studies are most efficient for investigating rare diseases or rare adverse events because they start with cases and controls, then look back for exposure. RCTs and cohort studies would require very large sample sizes and long follow-up periods to detect rare events, making them impractical and expensive. Cross-sectional studies cannot establish temporality.

QUESTION 6 SINGLE CHOICE

Workers in a battery manufacturing facility are exposed to inorganic lead. According to occupational health surveillance standards, what is the most appropriate periodic biological monitoring test for lead exposure?

- ☐ A Serum creatinine
- ☒ B Blood lead level
- ☐ C Urinary protein
- ☐ D Liver function tests

ANSWER B

WHY Blood lead level (BLL) is the standard biomarker for monitoring lead exposure in occupational settings. It reflects recent exposure (over the past few months) and is used along with zinc protoporphyrin (ZPP) or urine lead for comprehensive assessment. Periodic BLL monitoring with defined action levels (e.g., removal from exposure at ≥ 50 $\mu\text{g/dL}$ in many regulations) is standard practice.

QUESTION 7

SINGLE CHOICE

A new screening test for diabetes has a sensitivity of 95% and specificity of 90%. If the test is applied to a population with 10% disease prevalence, what is the positive predictive value (PPV)?

- ☒ **A** 52%
- ☐ **B** 95%
- ☐ **C** 90%
- ☐ **D** 85%

ANSWER A

WHY Using a 2x2 table for 1000 people: Disease prevalence 10% means 100 diseased, 900 non-diseased. True positives = $100 \times 0.95 = 95$. False positives = $900 \times 0.10 = 90$. $PPV = TP / (TP + FP) = 95 / (95 + 90) = 95/185 \approx 51.4\% \approx 52\%$. This illustrates how PPV decreases with lower prevalence, even with good sensitivity and specificity.

QUESTION 8

SINGLE CHOICE

According to WHO recommendations, what is the recommended duration of exclusive breastfeeding for optimal infant health outcomes?

- ☐ **A** 3 months
- ☐ **B** 4 months
- ☒ **C** 6 months
- ☐ **D** 12 months

ANSWER C

WHY WHO and UNICEF recommend exclusive breastfeeding for the first 6 months of life, followed by introduction of complementary foods while continuing breastfeeding up to 2 years or beyond. This recommendation is supported by strong evidence for reduced infant mortality, optimal growth, and protection against infections.

QUESTION 9

MULTIPLE CHOICE

The Ottawa Charter for Health Promotion identifies key action areas for improving population health. Which of the following are among the five action areas? (Choose two.)

- ☒ **A** Build healthy public policy
- ☐ **B** Mandatory genetic screening of all newborns
- ☒ **C** Create supportive environments
- ☐ **D** Isolate infected individuals during outbreaks

ANSWER A • C

WHY The Ottawa Charter (1986) identifies five action areas: (1) Build healthy public policy, (2) Create supportive environments, (3) Strengthen community action, (4) Develop personal skills, and (5) Reorient health services. Mandatory genetic screening and isolation of infected individuals are not among these action areas; they represent disease-specific control measures rather than the broader health promotion framework.