

THE INSTITUTE OF BANKERS PAKISTAN

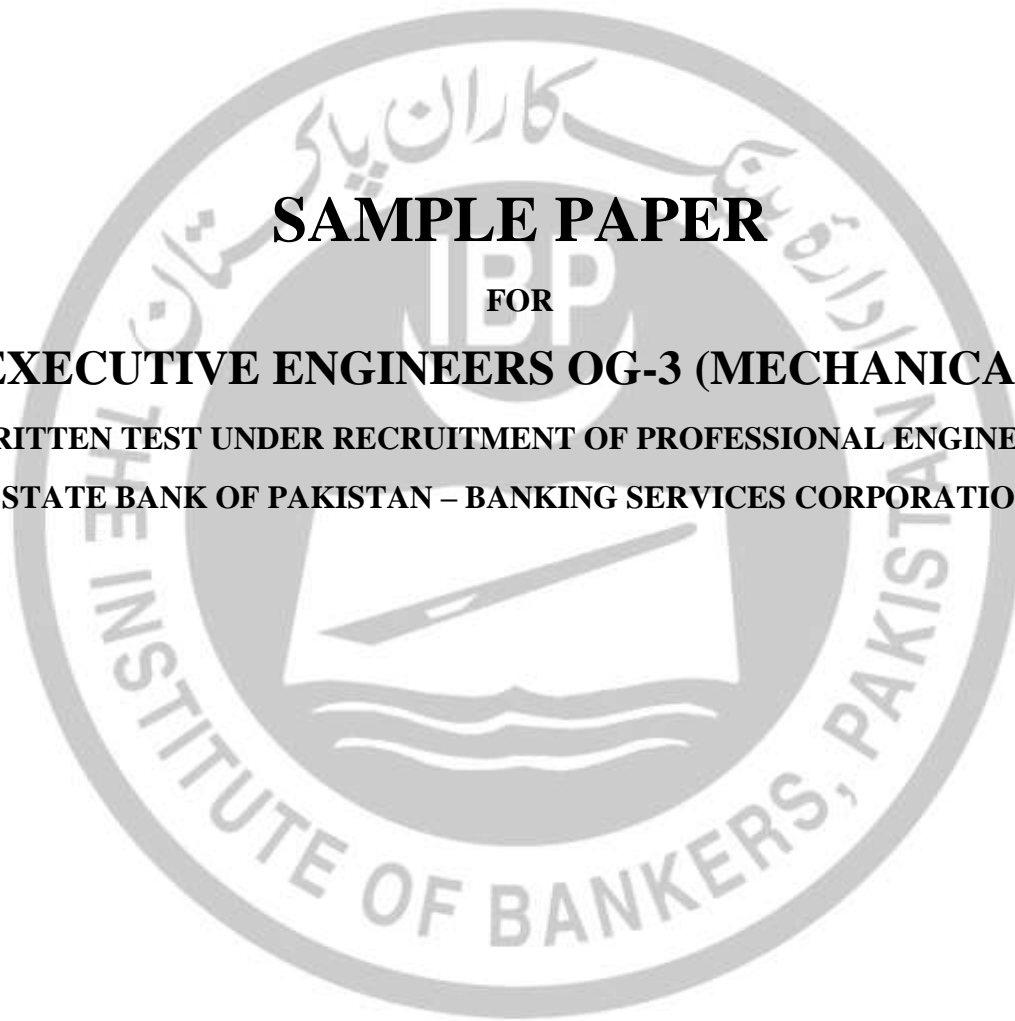
SAMPLE PAPER

FOR

EXECUTIVE ENGINEERS OG-3 (MECHANICAL)

WRITTEN TEST UNDER RECRUITMENT OF PROFESSIONAL ENGINEERS

STATE BANK OF PAKISTAN – BANKING SERVICES CORPORATION



ENGLISH

Read the passage carefully and answer questions 1-2

Some interesting information has been produced from a year-long analysis carried out on mobile phone network. It might be useful for epidemiologists and social scientists. It might shed light on how rumors are spread via social networks.

Researchers developed a link between a pair of phone users, on the basis of total time spent talking to each other. Strong links exist between members of same social group, whereas weak links join members from different social groups.

A dramatically differential effect was observed when researchers started removing links in the network whether starting with the strongest or with the weakest. It was surprising to them that removing strong links had little effect on overall structure of the network. On the other hand, removing weak links broke the network into a series of remote islands, with individual users connected to a small number of other phone users.

Researchers thus hypothesized that weak links are more significant in maintaining wider social network. If you lose a contact with casual acquaintances, there are more chances that your social circle may split but if you stop talking to your sister, there will be less visible impact on the structure of your social network.

- Q1. The passage offers support for which of the following statements?
- A. Strong links are less significant than weak links.
 - B. Face-to-face communication is similar to communication via phone.
 - C. Phone network patterns are considered useful for social scientists by some people.**
 - D. Geographically close individuals have strong links.
- Q2. In the last paragraph the author is trying to:
- A. Emphasize the effectiveness of current research.
 - B. Get more specific to enrich the reader's understanding.**
 - C. Strengthen the researchers' inferences.
 - D. Support his argument to make it more plausible.

For question 3, correct the sentence by selecting the right substitute of the underlined text from the given options

- Q3. The lady to who I sold my car was a cheat.
- A. which was sold
 - B. to that I sold
 - C. to who was sold
 - D. to whom I sold**

Q4. Select the correct ANTONYM (opposite) for the given word:

CLUE

- A. Key
- B. Indication
- C. Question**
- D. Trace

Q5. Select the correct SYNONYM (same or nearly the same meaning) for the given word:

SPLENDID

- A. Common
- B. Normal
- C. Ordinary
- D. Excellent**

QUANTITATIVE & INTELLIGENCE

Select the pair of words that best expresses the relationship similar to that of the pair given in question 6.

Q6. MATCH: FIRE

- A. AIR: CLOUD
- B. KEY: CAR**
- C. HORSE: LOYAL
- D. WORK: LOAD

Select the correct answer from the given options.

Q7. The average height of five boys in a class is 22.994 inches. If the heights of four boys are 6.45, 11.70, 12.35, 75.28 inches, find the height of fifth boy:

- A. 15.79 inches
- B. 20.25 inches
- C. 9.19 inches**
- D. 12.50 inches

Q8. 144 is what percent of 360?

- A. 25%
- B. 30%
- C. 40%**
- D. 45%

- Q9. Complete the sequence: 3, 2, 6, 4, 12, 8, ____, ____
- A. 18, 12
 - B. 16, 10
 - C. 18, 16
 - D. 24, 16**

MECHANICAL ENGINEERING

Select the correct answer from the given options.

- Q10. Which of the following should be installed to avoid fire to travel through ducts?
- A. damper gates**
 - B. detectors
 - C. valves
 - D. beacons
- Q11. The material of pipe lines for a system using Freon as a refrigerant should be:
- A. copper
 - B. steel
 - C. brass
 - D. aluminum**
- Q12. What is the effect on surface tension of condensate water droplets in Air Handling Unit (AHU) when it is altered by coating aluminum fins?
- A. It remains same
 - B. It varies
 - C. It increases
 - D. It reduces**
- Q13. Higher temperature in vapor compression cycle occurs at _____.
- A. receiver
 - B. expansion valve
 - C. condenser discharge
 - D. compressor discharge**
- Q14. Which of the following person verifies to the Principal that all project risks will be adequately covered by the existence of relevant quality management systems.
- A. project owner
 - B. project manager**
 - C. project consultant
 - D. project architect

- Q15. Allowable pressure on high pressure side of ammonia absorption system is
- A. Atmospheric pressure
 - B. Slightly above atmospheric pressure
 - C. 24 bars
 - D. 56 bars**
- Q16. If engine knocking has high rate of occurrence, then it will
- A. increase the efficiency of the engine
 - B. decrease the efficiency of the engine
 - C. cause oil leakage
 - D. damage the engine**
- Q17. The efficiency of Absorption Chillers at full load is _____.
- A. 0.84 to 1.00
 - B. 3.20 to 5.60**
 - C. 0.48 to 0.65
 - D. 0.70 to 0.80
- Q18. In rectangular ducts, what is the optimum aspect ratio:
- A. 8:1
 - B. 4:1**
 - C. 2:1
 - D. 3:1
- Q19. Jet type nozzles are applicable when we want to supply air from diffuser to _____.
- A. moderate distance occupants
 - B. longer distance occupant**
 - C. short distance occupants
 - D. variable distance occupants
- Q20. For short listing a supplier, the most important criterion is:
- A. alignment of supplier with design modalities**
 - B. consultant's recommendation
 - C. cost effectiveness
 - D. the association and certifications

XXX --- END OF PAPER --- XXX