SET - I

APTITUDE:

Q1. Fill in the blank to complete the following statement.

Any venture cannot succeed without ----- marketing.

- a. Affective
- b. Effective
- c. Affecting
- d. Current

Q2. With the word TOMORROW, how many different words can you form such that the vowels in the words should not come together?

- a. 350
- b. 3000
- c. 2000
- d. 4000

Q3. Find the odd man out:

- a. Fingers
- b. Toes
- c. Knee
- d. Thigh
- e. Feet

Q4. In code language, 786 means study very hard, 958 means hard work pays and 645 means study and work. Choose amongst the following options, which number will represent as a code for - very?

a. 5

b. 3 c. 4 d. 7		
Q5. Some pencils were bought at 6 for Rs. 5 and sold at 5 for Rs. 6. What will be the percentage gained?		
a. 30% b. 32% c. 44% d. 35.25%		
Rearrange the options in between S1 and S6 to form a coherent paragraph which is grammatically correct.		
Q6. S1. Ted Brinkman and Jim Spencer worked together as managers of a group of large regional retail operations before starting the retail Store.		
 Both bring extensive retail marketing and finance knowledge to the company Over the past 10 years, under their direction, the organization became the largest and most well-known in their area And it was at that point that Jim and Ted decided to branch out on their own The owners of the company were looking to sell the company to a national organization 		
S6. They have the knowledge, experience and contacts to make the company a success.		
a. 2431 b. 1234 c. 4321 d. 2413		

Choose the correct synonym for the underlined part in the below mentioned

statement:

- Q7. We are selling more than just merchandise.
 - a. Commodities
 - b. Freight
 - c. Consignment
 - d. Conveyance

From the below mentioned sentence choose which part of the sentence should be corrected to form a grammatically correct sentence:

- Q8. Many companies have a brief mission statement (1)/ usually in 30 words or fewer (2)/ explaining their reason for being (3)/ their guiding principles (4).
 - a. Usually in 30 words or fewer
 - b. Their guiding principles
 - c. Explaining their reason for being
 - d. No error

TECHNICAL:

- Q9. Choose the correct alternative for reversible polytrophic process.
 - a. Entropy constant
 - b. Density constant
 - c. Temperature constant
 - d. Volume constant
 - e. Same heat transfer
- Q10. What is it called when a heat engine attains 100% efficiency?
 - a. II law
 - b. I law
 - c. Zeroth law
 - d All

Q11. What does statistical quality control chart use?

- a. Probability
- b. Statistics
- c. All of the above

Q12. What is reciprocating compressor used for?

- a. Large quantity of air at low pressure
- b. Low quantity of air at low pressure
- c. Large quantity of air at high pressure
- d. Low quantity of air at high pressure

Q13. What will be isothermal, isochoric, adiabatic and isobaric be under idyllic situation?

- a. Dynamic
- b. Stable
- c. Thermodynamic
- d. Static
- e. Quan static

Q14. Choose from the below given option a popular firing sequence.

- a. 1423
- b. 1342
- c. 1324
- d. 1234
- e. 1243

Q15. What is the reason behind vortex being on whirlpool?

- a. Wake
- b. Drag

c. Cavitation

Q16. When will the output if diesel engine increase?		
a. Incoming airb. When more fuel is utilisedc. By superchargingd. Scavenginge. Flywheel size		
Q17. What will be the result if petrol is used in diesel engine?		
a. Black smokeb. Improper combustionc. Lot of fueld. Higher knocking		
Q18. Define Rupture.		
Q19. Explain critical pressure.		
Q20. What is the usage of reamer?		
Q21. Define Compressor performance curve.		
Q22. When will centre of pressure be equal to centre of gravity?		
Q23. What is the purpose of shock absorber?		

Q24. What is axial low pump used in?

Q25. List the equilibrium conditions. TECHNICAL:		
Q1. If a gas or vapour allowed to expand through a minute hole:		
a. free expansionb. hyperbolicc. adiabatic expansiond. parabolice. throttling		
Q2. A belt drive, where pulley diameter is double and then it key length must be		
a. doubled b. same c. increase the critical length		
Q3. For fluctuating load is used.		
a. ball bearingb. roll bearingc. thrust bearingd. sleeve bearing		
Q4. For same power, same speed, flywheel of petrol and diesel engine are		
a. smaller b. greater c. equal d. none		
Q5. Convert volumetric to gravitational, relative volume of each constituent of		

flue gas:

a. %mw

	b. xmv
	c. me
	d. xsw
	e. %sw
Q6. I	Flow of particles in definite path without change in the path of the particle:
	a. one dimensional
	b. turbulent
	c. steady state
~ = <i>(</i>	Out the second section of the sectio
Q7. :	Surface contact in motion is called
	a. roll pair
	b. surface pair
	c. lower pair
	d. slide
	d. Slide
Q8. ⁻	The pressure p in terms of its mean kinetic energy/ unit volume E is
Ψ.	
	a. E/3
	b. E/2
	c. 3E/4
	d. 2E/3
	e. 5E/4
Q9. I	Lean relation for
	a. specific gravity
	b. dynamic viscosity
010	Thermal diffusity

	a. Dimensionless b. used in radiation process
Q11.	Axial flow pump is used?
Q12.	Rotometer is used?
Q13.	Pressure coefficient is given by?
SET	Γ - <u>TUDE:</u>
size	A square plate of some size is cut at four corners. Equal squares of the same are cut & is formed as open box. If this open box carries 128 ml of oil. Whate size of the side of the plate?
	(a) 17 (b) 14 (c) 13 (d) None of these
every	A digital wristwatch was set accurately at 8.30 a.m and then lost 2 seconds y 5 minutes. What time was indicated on the watch at 6.30 p.m of the same f the watch operated continuously that time?
	(a) 5:56 (b) 5:58 (c) 6.00 (d) 6.23 (e) 6.26

ANS: e) 6.26

Q3. If the total number of marbles are 72, then the number of marbles with A at the starting is:

- (a) 20
- (b) 30
- (c) 32
- (d) 39

ANS: (d)

Q4. There are 200 questions on a 3 hr examination. Among these questions are 50 mathematics problems. It is suggested that twice as much time be spent on each Maths problem as for each other question. How many minutes should be spent on mathematics problems?

- (a) 36
- (b) 72
- (c) 60
- (d) 100

ANS: b

Q5. How long will a train 100 m long travelling at 72 kmph take to overtake another train 200 m long travelling at 54 kmph?

- (a) 70 sec
- (b) 1 min
- (c) 1 min 15 sec
- (d) 55 sec

ANS: (b)

Q6. A merchant sells an item at a 20 percent discount. But still makes a gross profit of 20 percent of the cost. What percent of cost would be gross profit on the item have been if it had been sold without the discount?

- (a) 20%
- (b) 40%
- (c) 50%
- (d) 60%
- (e) 66.6%

ANS: c) 50%

Q7. In a team of 12 persons, 1/3 are women and 2/3 are men. To obtain a team with 20% women how many men should be hired?

ANS: 8

Q8. If Rs. 20/- is available to pay for typing a research report & typist A produces 42 pages and typist B produces 28 pages. How much should typist A receive?

ANS: Rs. 12/-

TECHNICAL:

Q1. In pinion and gear design, the design must be made by

- a. gear
- b. pinion
- c. both

Q2. Acetylene is staid on ----- form

- a. liquid
- b. solid
- c. compressed

Q3. Statistical quality control charts uses

- a. statistics
- b. probability
- c. all the above.

Q4. The plate is severely deformed at a side then it grains becomes

- a. ductile
- b. malleable

Q5. If Q1 is the heat in source, Q2 is the cold sink for heat pump then COP

- a. Q1 / (Q1- Q2)
- b. Q2 / (Q1- Q2)
- c. (Q1- Q2) / Q1

Q6. Minimum work of compressor is possible, when the adiabatic index is

- a. 0.75
- b. 1
- c. 1.27
- d. 1.35
- e. 2

Q7. The output of diesel engine is increased if

- a. more fuel
- b. flywheel size
- c. incoming air
- d. scavenging
- e. supercharging

Q8. Accumulation of carbon in the cylinder increases when

- a. decrease in volume
- b. volumetric efficiency
- c. ignition time
- d. effective compression ratio
- e. travel time

Q9. Tool life is concentrated on

- a. cutting speed
- b. material
- c. feed or depth
- **Q10.** What is austempering?
- **Q11.** What is recrystallation temperature?
- Q12. D1 and D2 are pulley diameter, and then the speed is given by ---.