STMEI'S
SANDIPANI TECHNICAL CAMPUS
Faculty of Engineering & Polytechnic
AN ISO 9001:2015 CERTIFIED INSTITUTE
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B NAAC
ACCREDITED WITH GRADE

VCRP - 2024

Round 1: Aptitude Test on 14/3/2024 at College Campus

Aptitude Test Guidelines

Aptitude test will be conducted on computer on **14/3/2024 at 10:30 AM** in college campus Sandipani Technical Campus Faculty of Engineering, Nanded Road, Kolpa, Latur.

Exam Pattern:

Exam Paper: Branch wise

Total Marks: 25 (General Aptitude-15, Technical Aptitude- 10)

Exam Duration: 30 Mins.

Note: Kindly bring Receipt, your college ID-Card/any other ID proof

Venue: Computer Labs, Sandipani Technical Campus Faculty of Engineering, Kolpa, Latur

Polytechnic Mechanical Engg. Branch Question Bank
Technical Questions: 10 Marks
Subject: Manufacturing Processes

Any of the Following 10 Questions will be asked.

1. In which operation, motion of job is rotary and motion of cutting tool is forward translating?
a) Turning
b) planning
c) milling
d) all of the mentioned

2. Which type of job motion is there in drilling operation?
a) rotary
b) translating
c) fixed

d) none of the mentioned

3. In which type of operation, motion of cutting tool is translating?
a) drilling and milling
b) milling and turning
c) boring and drilling
d) turning and planning

4. In which type of operation, motion of cutting tool is rotary as well as translating?
a) planning
b) milling
c) drilling
d) turning

5. In drilling motion of job is rotary.
a) true
b) false

6. Motion of cutting tool is rotary in milling machine.
a) true
b) false

7. Which type of cutting tools have wide application on lathes?
a) single point
b) multi point
c) both single point and multi point
d) none of the mentioned

8. Which of the following is the example of multi point cutting tool?
a) milling cutter
b) broaching tool
c) both milling utter and broaching tool
d) none of the mentioned

9) In a plain milling machine table can be moved ……………..

a)Longitudinally
b)Crosswise

c)Vertically
d)All of these

10. Motion of job is forward rotary in broaching operation.
a) true
b) false

11. Which of the following is an example of non cutting shaping process?
a) turning
b) forging
c) drilling
d) milling

12. Which of the following is the example of cutting shaping process?
a) knurling
b) forging
c) pressing
d) drawing

13. The process of metal cutting is affected by the relative motion between the piece of work and the hard type edge of a cutting tool against the work piece.
a) true
b) false
View Answer

14)The tool having one cutting edge is known as………….
a)Single point cutting tool
b)Multi point cutting tool

c) both a and b

d) none of the above

15)When cutting face of tool is 90° to the line of action of tool then it is known as………….
a)Oblique cutting
b)Orthogonal cutting
c) Single point cutting
d) Multi point cutting

16) If cutting face of the tool is at less than 90° to the line of action of tool then it is known as……………
a)Orthogonal cutting
b)Oblique cutting
c) Single point cutting
d) Multi point cutting

17) In Orthogonal cutting chips are in form of…………..

a)Discontinuous
b)Coils in tight, flat spiral
c)Long curl
d) none of the above

18) In oblique cutting chips are in form of…………
a)Long curl
b)Flat spiral
c)Discontinuous
d)Short & thick

19)…………………are most commonly used for measuring force in metal cutting.
a)Mechanical & strain gauge dynamometer
b)Calorimeter
c)Wattmeter
d) all of the above

20) Discontinuous / segmental chips are obtained in the cutting of …………………materials
a)Brittle materials
b)Ductile materials
c)Soft materials
d) all of the above

21)Lowest portion of side cutting edges is …………………….of single point cutting tool.
a)Heel
b)Flank
c)Rake
d) axis

22) Distance the tool advances into workpiece each time the tool point passes a certain position in it's travel over the surface his the……………….of the cutting tool.
a) Feed
b)Cutting speed
c)Depth of cut
d) none of the above

23) In single point tool feed is expressed in ………….
a)Millimeter per revolution
b)Centimeter per revolution
c)Millimeter
d) centimeter

24) To reduce the wear of tool on harder material it should be machined at…………………
a)Lower cutting speed & smaller feed
b)Lower cutting speed & higher feed
c)Higher cutting speed & lower feed
d) all of the above

25)…………………. Gives best finish.
a)Lower cutting speed & higher feed
b)Higher cutting speed & higher feed
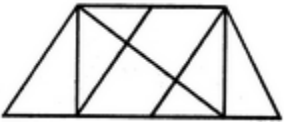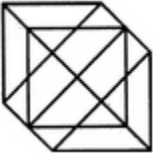c)Higher cutting speed & fine feed
d) none of the above

Aptitude Test Question Bank

	Aptitude Questions: 15 Marks
	Any of the Following 15 Questions will be asked.
Q1	Which number should come next in the series, 48, 24, 12, ...?
	A. 8 B. 6 C. 4 D. 2
Q2	If 9th of the month falls on the day preceding Sunday, then on what day will 1st of the month fall?
	A. Friday **B.** Saturday **C.** Sunday **D.** Monday
Q3	Find the remainder when 6799 is divided by 7.
	A. 4 **B.** 6 **C.** 1 **D.** 2
Q4	The cost of setting up a magazine is Rs. 2800. The cost of paper and ink etc is Rs. 80 per 100 copies and printing cost is Rs. 160 per 100 copies. In last month 2000 copies were printed but only 1500 copies could be sold at Rs. 5 each. Total 25% profit on the sale price was realized. There is one more resource of income from magazine which is advertising. What sum of money obtained from the advertising in magazine?
	A. 1750 B. 2350 C. 1150 D. 1975
Q5	Avinash covers a distance of 8km in 50 minutes. If he covers

	3km distance in 2/5th of time then, What speed should he maintain to cover the remaining distance in the remaining time?
	A. 13 kmph B. 15 kmph C. 14 kmph **D.** 11 kmph
Q6	Find the odd man out? 396, 462, 572, 427, 671, 264.
	A. 427 B. 671 C. 462 D. 264
Q7	If in a certain language, NOIDA is coded as OPJEB, how is DELHI coded in that language?
	A. CDKGH B. EFMIJ C. FGNJK D. IHLED
Q8	Odometer is to mileage as compass is to
	A. speed B. hiking C. needle D. direction
Q9	Window is to pane as book is to
	A. page B. novel C. glass D. cover
Q10	Reptile is to lizard as flower is to
	A. petal

	B. stem C. daisy D. alligator
Q11	Tanya is older than Eric. Cliff is older than Tanya. Eric is older than Cliff. If the first two statements are true, the third statement is
	A. true B. false C. uncertain D. none
Q12	Find the number of triangles in the given figure.
	A. 8 B. 10 C. 12 D. 14
Q13	Find the number of triangles in the given figure.
	A. 18 B. 20 C. 24 D. 27
Q14	What is the number of triangles that can be formed whose vertices are the vertices of an octagon but have only one side common with that of octagon?
	A. 64 B. 32 C. 24 D. 16
Q15	Even if it rains I shall come means ......
	A. if I come it will not rain B. if it rains I shall not come

	C. I will certainly come whether it rains or not
	D. whenever there is rain I shall come
Q16	I felt somewhat more relaxed ......
	A. but tense as compared to earlier
	B. and tense as compared to earlier
	C. as there was already no tension at all
	D. and tension-free as compared to earlier
	E. because the worry had already captured by mind
Q17	"The food in this hotel is no match to what were forced at late hours in Hotel Kohinoor " means ......
	A. The food in this hotel is quite good compared to what we ate at kohinoor
	B. Hotel kohinoor served us good quality food than what we get here
	C. Both hotels have maintained good quality of food
	D. Both hotels serve poor quality of food
	E. it is better to eat food than remain hungry
Q18	The cost price of 20 articles is the same as the selling price of x articles. If the profit is 25%, then the value of x is:
	A. 16
	B. 15
	C. 18
	D. 25
Q19	In a certain store, the profit is 320% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?
	A. 30%
	B. 70%
	C. 100%
	D. 250%
Q20	A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain 20%?
	A. 3
	B. 4
	C. 5

	D. 6
Q21	A sum of money is to be distributed among A, B, C, D in the proportion of 5 : 2 : 4 : 3. If C gets Rs. 1000 more than D, what is B's share?
	A. Rs. 500
	B. Rs. 1500
	C. Rs. 2000
	D. None of these
Q22	Catching the earlier train will give us the ...... to do some shopping.
	A. chance
	B. luck
	C. possibility
	D. occasion
Q23	The grapes are now ...... enough to be picked.
	A. ready
	B. ripe
	C. mature
	D. advanced
Q24	Success in this examination depends ...... hard work alone.
	A. at
	B. over
	C. for
	D. on
Q25	If you smuggle goods into the country, they may be ...... by the customs authority.
	A. confiscated
	B. possessed
	C. punished
	D. fined
Q26	Peter is twice as good as workman as Tom. When they work together they can finish a task in 16 days. If Tom works alone, in many days he will complete the task?

	A.	46 days
	B.	48 days
	C.	50 days
	D.	52 days
Q27	A man purchases a TV for Rs. 8000 and sells it at 10% loss. What is the selling price of T.V?	
	A.	Rs.7200
	B.	Rs.7000
	C.	Rs.6900
	D.	Rs.6500
Q28	Sohan has borrowed Rs. 5000 at the rate of 6% S.I. what amount he needs to pay after 3 years to clear the debt?	
	A.	Rs. 5500
	B.	Rs. 5900
	C.	Rs. 6100
	D.	Rs. 6300
Q29	Find the HCF of 210, 385, and 735.	
	A.	7
	B.	14
	C.	21
	D.	35
Q30	Find the missing letters in the series, GAH, IBJ, KCL, MDN, ___.	
	A.	OEG
	B.	OEP
	C.	OEB

	D. OEA
Q31	Which letter should come next in the series F,G,H,J,K,L,M,N,P,_?
	A. Q
	B. R
	C. T
	D. O
Q32	Synonyms of Fake
	A. Imitation
	B. Fair
	C. Flair
	D. Fact
Q33	Antonym of Extend
	A. Condense
	B. Expand
	C. Congestion
	D. Convert
Q34	Rohan and Rohit are twin brothers, but they do not look ......
	A. unique
	B. different
	C. likely
	D. alike
Q35	n the first 10 overs of a cricket game, the run rate was only 3.2. What should be the run rate in the remaining 40 overs to reach the target of 282 runs?
	A. 6.25
	B. 6.5
	C. 6.75
	D. 7
Q36	A grocer has a sale of Rs. 6435, Rs. 6927, Rs. 6855, Rs. 7230 and

	Rs. 6562 for 5 consecutive months. How much sale must he have in the sixth month so that he gets an average sale of Rs. 6500?
	A. Rs. 4991
	B. Rs. 5991
	C. Rs. 6001
	D. Rs. 6991
Q37	The average of 20 numbers is zero. Of them, at the most, how many may be greater than zero?
	0 1 10 19
Q38	The average weight of 8 person's increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of the new person?
	A. 76 kg
	B. 76.5 kg
	C. 85 kg
	D. Data inadequate
	E. None of these
Q39	Mr. Thomas invested an amount of Rs. 13,900 divided in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in 2 years be Rs. 3508, what was the amount invested in Scheme B?
	A. Rs. 6400
	B. Rs. 6500
	C. Rs. 7200
	D. Rs. 7500
	E. None of these
Q40	How much time will it take for an amount of Rs. 450 to yield Rs. 81 as interest at 4.5% per annum of simple interest?
	A. 3.5 years B. 4 years C. 4.5 years

	D. 5 years
Q41	Reena took a loan of Rs. 1200 with simple interest for as many years as the rate of interest. If she paid Rs. 432 as interest at the end of the loan period, what was the rate of interest?
	A. 3.6 B. 18 C. 6 D. Cannot be determined E. None of these
Q42	From a group of 7 men and 6 women, five persons are to be selected to form a committee so that at least 3 men are there on the committee. In how many ways can it be done?
	A. 564 B. 645 C. 735 D. 756 E. None of these
Q43	In how many ways can the letters of the word 'LEADER' be arranged?
	A. 72 B. 144 C. 720 D. 360 E. None of these
Q44	If log 2 = 0.3010 and log 3 = 0.4771, the value of log5 512 is:
	A. 2.870 B. 2.967 C. 3.876 D. 3.912
Q45	Find the odd man out 8, 27, 64, 100, 125, 216, 343
	A. 27 B. 100 C. 125 D. 343