



PAPER – II WORKSHOP CALCULATION & SCIENCE & EMPLOYABILITY SKILLS (MORNING SESSION) 10TH PASS (TWO YEAR TRADES) SEMESTER – II

TIME: 3 HRS.		MARKS: 125
	D 44 0 D 4 D	

Note: This paper contains two parts – Part A & Part B. Attempt all the questions.

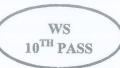
All questions carry equal marks.

PART – A (WORKSHOP CALCULATION & SCIENCE) (MARKS: 75)

Choos	se the correct answer.		
1.	$Tan45^0$, cot $45^0 =$		
	a. 1	c.	$\frac{1}{\sqrt{2}}$
	b. $\frac{1}{2}$	d.	√2 0
2.	Circumference of a circle is given by		
	a. πD	C.	Both (a) & (b)
	b. 2πr		Neither a nor b
3.	The area of a parallelogram is 72 cm ² and its altitude the length of the base is	is t	wice the corresponding base. Then
	a. 12 cm	c.	6 cm
	b. 9 cm	d.	3 cm
4.	The ratio of area of a circle to the area of semi-circle	is-	
	a. 1:2	c.	4:1
	b. 2:1	d.	1:4
5.	A circular well with a diameter of 2 meters, is due to	a de	opth of 14 meters. What is the
	volume of the earth dug out?		
	a. 40m^3	C.	44 m ³
	b. 42 m ³	d.	46 m ³
6.	If $x+y = 18$ and $x-y= 2$. Find the value of x and y.		
	a. 6, 4	C.	10, 8
	b. 8, 6	d.	12, 9
7.	2 x 0.2x 0.02x 0.002x 20=		
	a. 0.032		0.00032
	b. 0.0032	d.	0.000032
			Contd2/-

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8.	Add 110.035, 32, 18.6, 0.79, 3.5427				
	a. 416.9677	c. 146.9767			
	b. 164.9677	d. 461.7977			
		. 101.7777			
9.	What is the reciprocal of $tan\theta$?				
	a. $\frac{1}{\tan \theta}$	c. cot0			
	b. cosθ	d. cosecθ			
	<i>5.</i> 0 030				
10.	Volume of cylinder -				
	a. $\pi R^2 H$	2 72.21			
	b. $\frac{1}{2}\pi R^2 h$	c. $\frac{2}{3}\pi R^2 h$ d. $2\pi R^2 h$			
	3 111 11	d. $2\pi R^2 h$			
11.	Latent heat of ice is –				
11.	100 10				
	a. 40 cal/gram	c. 120 cal/gram			
	b. 80 cal/gram	d. 160 cal/gram			
12.	The ratio of distance moved by the effort to	All I'm I I I I I I			
	The ratio of distance moved by the effort to a. Efficiency	o the distance by the load is called -			
	b. Velocity ratio	c. Mechanical advantage			
		d. All of these			
13.	What is the formula for given ratio of a velo	ocity simple wheel and ayla			
	a. d/D	c. D/d			
	b. πd/D	d. πD/d			
		d. λD/d			
14.	In a parallel circuit operating with a battery of 30 VAC, designed to carry a total current of 6				
	A, the resistance suddenly changes to 2 Ω . The fuse will				
	a. Closes	c. Shorts to ground			
	b. No change	d. Opens			
		-			
15.	Which of the following parameters should be	e considered while connecting a voltmeter into a			
	- o mount.	di continue di			
	a. rms	c. Polarity			
	b. Resistance	d. Power factor			
16.	Which one of the fall-				
10.	Which one of the following is not a electrical a. Voltage	quantity?			
	b. Current	c. Distance			
	o. Curent	d. Power			
17.	Ohmmeter is used for measure -				
	a. Current	5			
	b. Potential difference	c. Resistance			
	WALL OILU	d. All of these			
18.	Correct sequence of current flow in simple electric circuit is -				
	a. Load, switch, battery				
	b. Battery, switch, load	c. Load, battery, switch			
	V /	d. Switch, load, battery			





18/B/C/S-2/4/WS

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19.	$\sqrt{0.9} \times \sqrt{1.6} = ?$
	a. 0.12

b. 1.2

c. 0.75

1.2 d. 12

20. The boiling point of alcohol is 78° C. What is this temperature on the Kelvin scale?

a. 151° K

c. 351° K

b. 251° K

d. 451° K

21. In A.C supply number of cycles per second is called-

a. Frequency

c. Current

b. Voltage

d. Resistance

22. $1+\tan^2\theta =$ _____.

a. $\csc \theta$

c. $cosec.tan^2 \theta$

b. $\sec \theta$

d. $\sec^2 \theta$

23. $\sin^2 45^\circ + \cos^2 45^\circ =$

a. 1

b. =

c. 0

d. $\frac{1}{\sqrt{2}}$

24. Cosec 0°= .

a. 1

b. $\sqrt{3}$

c. $2/\sqrt{3}$

d. None of these

25. Wheel and axle is an example of ______

a. Lever

b. Inclined plane

c. Pulley

d. Simple machines

