Question Booklet Alpha Code





Total Number of Questions: 100 Time: 75 Minutes

Maximum Marks: 100

INSTRUCTIONS TO CANDIDATES

- The Question Paper will be given in the form of a Question Booklet. There will be four versions of Question Booklets with Question Booklet Alpha Code viz. A, B, C & D.
- The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the Question Booklet.
- 3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
- 4. If you get a Question Booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
- The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same alpha code.
- 6. The Question Booklet will be sealed at the middle of the right margin. Candidate should not open the Question Booklet, until the indication is given to start answering.
- 7. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him/her contains all the 100 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
- 8. A blank sheet of paper is attached to the Question Booklet. This may be used for rough work.
- 9. Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.
- Each question is provided with four choices (A), (B), (C) and (D) having one correct answer.
 Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball Point Pen in the OMR Answer Sheet.
- 11. Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.
- 12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
- 13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

A -2-

1.	Cu	mulative errors that are proportional to		
	A)		B)	L
	C)		•	1/2
	-,	_	-,	·-
2.		are the ends of the survey line	s wl	nich command the boundaries of the
	sui	vey.		
	A)	Tie station	B)	Main station
	C)	Base line	D)	None of these
3.	Th	e offset should not be longer than		
	A)	30 m	B)	20 m
	C)	15 m	D)	10 m
4.	In o	optical square the angle between the firs the angle between them the tw		-
	A)	half	B)	twice
	C)	same	D)	none of these
5.		r compass survey the direction from a		-
	A)	True bearing	B)	Magnet bearing
	C)	Arbitrary bearing	D)	All of these
6.		e following are the bearing of the line A lculate the angle BAC.	Ва	nd AC : AB N15 15E, AC N87 10E.
	A)	71° 05′	B)	71° 55′
	C)	71° 15′	D)	61° 15′
7.	Th	e image formed on the plane of cross ha	air b	y the objective is
	A)	Virtual and Inverted		
	B)	Magnified and Inverted		
	C)	Real and Inverted		
	D)	None of these		

8.	The	ails from stations, which have been		
	A)	Resection	B)	Radiation
	C)	Intersection	D)	Traversing
9.	Th	e absence of Chromatic Aberration is kn	wo	n as
	A)	Aplantation	B)	Achromatism
	C)	Brightness	D)	None of these
10.	Fo	r locating the river which method of plan	e ta	ble is used ?
	A)	Radiation	B)	Intersection
	C)	Traversing	D)	Resection
11.		e effect of curvature is to cause the obj	ects	s sighted appear than
	A)	Higher	B)	Lower
	C)	Same	D)	None of these
12.	Th	e effect of refraction is		
	A)	Not constant	B)	Constant
	C)	Zero	D)	None of these
13.	In t	total station data is stored in		
	A)	Pen drive	B)	Data Card
	C)	Micro Processor	D)	External Hardware
14.	Th	e minimum clearance kept between the	Gril	lage beam in Grillage foundation is
	A)	7 cm	B)	8 cm
	C)	10 cm	D)	14 cm
15.		e pile anchor down the structure subject	ted	to uplift pressure due to overturning
	A)	Sheet pile	B)	Uplift pile
	C)	Batter pile	D)	Screw pile

Α

16. Safe permissible load on coursed rubble in cement mortar				
	A) 90 T/M2	B) 45 T/M2		
	C) 88 T/M2	D) 100 T/M2		
17.	The depth of lintel should be			
	A) 15 cm	B) 8 cm		
	C) 10 cm	D) 20 cm		
18.	The diameter of bar used in lintel for spa	1.5 to 2 m		
	A) 16 mm	B) 10 mm		
	C) 6 mm	D) 12 mm		
19.	The sloping surface used to provide an e	asy connection betwee	en floor	
	A) Stair	B) Ramp		
	C) Lift	D) Escalator		
20.	What is the alignment of cross joint along	the plumb line ?		
	A) Lintel	B) Perpend		
	C) Bed Block	D) Vertical Line		
21.	The process of filling hollow space of wa	s before plastering is	known as	
	A) Peeling	B) Blistering		
	C) Hacking	D) Dubbing out		
22.	Additional Pozzolana to ordinary portland	cement increases		
	A) Bleeding			
	B) Shrinkage			
	C) Permeability			
	D) Heat of Hydration			
23.	Wrought iron is manufactured from pig ir	n by		
	A) Refining	B) Pudding		
	C) Shingling	D) All the above		
Α		5-		

24.	4. Temporary structure to support arch during its construction				
	A) Shuttering	B) Support			
	C) Post	D) Centering			
25.	The straight line which is generating the su	urface of the cone is called			
	A) Generator	B) Vertex			
	C) Axis	D) Base			
26.	The point of contact between the focal sph	nere and section plane is called			
	A) Vertex	B) Axis			
	C) Generator	D) Focus			
27.	For reducing and enlarging drawing from numerical value is called	an available drawing without converting			
	A) Compass				
	B) Proportional Divider				
	C) Set square				
	D) Planimeter				
28.	In first angle projection object is situated plane of projection.	of the observers eye and the			
	A) Infront				
	B) In between				
	C) None of these				
	D) Both A and B				
29.	A solid having four equal equilateral triange	gular faces			
	A) Pyramid	B) Tetrahedron			
	C) Cone	D) Polygon			
30.	An actual length of 5 m of a room is repre will be	esented by 25 mm length on drawing RF			
	A) 1:20	B) 1:200			
	C) 1:2000	D) 1:2			

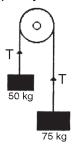
31.	The amount of water held in the soil after drained	er e	xcess gravitational water has been
	A) Wilting coefficient	B)	Saturation capacity
	C) Field capacity	D)	None of these
32.	The Canal located outside the command ar one source of supply to another within the		
	A) Feeder Canal	B)	Distributory
	C) Diversion Canal	D)	None of these
33.	The structure constructed at the off take of sluice	of th	ne canal adjacent to the river under
	A) Diversion head work	B)	Outlet
	C) Inlet	D)	Head Regulator
34.	The usual capacity of tube well is	(cumecs.
	A) 0.056	B)	0.56
	C) 0.004	D)	0.040
35.	Duty of an irrigation tube well is	_ tha	an that of a canal irrigation.
	A) Higher	B)	Lower
	C) Same	D)	None of these
36.	The property of a fluid which offers resistar over another layer of fluid	ice	to the movement of one layer of fluid
	A) Specific Gravity	B)	Viscosity
	C) Density	D)	None of these
37.	The rate of increase of pressure in a vertica at that point	l dir	ection equal to weight density of fluid
	A) Hooks Law	B)	Hydraulics Law
	C) Hydrostatic Law	D)	None of these
38.	Piezometer is used for measuring		
	A) Velocity	B)	Pressure
	C) Temperature	D)	Viscosity

A -7-

39.	The type of flow in which the fluid character do not change with time	istic	es like velocity, pressure, density etc.
	A) Steady flow	B)	Uniform flow
	C) Compressible flow	D)	Laminar flow
40.	Command used to remove the selected ob	ject	from a drawing
	A) Remove	B)	Erase
	C) Extrude	D)	All the above
41.	Which command create a new objects para	allel	to the original object?
	A) Parallel	B)	Offset
	C) Copy	D)	Mirror
42.	Which command draw line that extends inf	inity	in both direction?
	A) Line	B)	Poly line
	C) X Line	D)	None of these
43.	Brick walls are measured in M2 if the thickr	nes	s of the wall is
	A) 10 cm B) 15 cm	C)	20 cm D) None of these
44.	According to Indian Standard Institute the a	actu	al size of modular brick is
	A) 23*11.5*7.5 cm	B)	25*13*7.5 cm
	C) 19*9*9 cm	D)	20*10*10 cm
45.	The measurement is not made in M2 ion ca	ase	of
	A) DPC	B)	Form Works
	C) Concrete Jeffries	D)	R. C. Chajja
46.	Due to change in price level, a revised estimexceeds	ate	is prepared if the sanctioned estimate
	A) 2%	B)	2.5%
	C) 4%	D)	5%
47.	While preparing a detailed estimate area sl	hou	ld be measured correct to
	A) .01 M2	B)	.02 M2
	C) .001 M2	D)	.0001 M2

48.	3. A is a set of rules that specify the standard for constructed objects such as buildings and non-building structures.				
	A) Building Code	B)	Building by laws		
	C) IS Code	D)	Procedure		
49.	Combination of two or more plots as a sing	le p	olot is called		
	A) Amalgamation	B)	Frontage		
	C) Bifurcation	D)	Building set back		
50.	The property by which lime will set in damp	pla	ace		
	A) Harated Lime	B)	Hydraulicity		
	C) Calcination	D)	Slaking		
51.	The deformation per unit length is called				
	A) Stress	B)	Strain		
	C) Young's Modulus	D)	Bulk Modulus		
52.	The unit of force in CGS system of unit is o	alle	d		
	A) Dyne	B)	Newton		
	C) Kilogram	D)	All of these		
53.	Two forces act at an angle of 120°. If the gis perpendicular to the smaller force, the smaller		<u> </u>		
	A) 20 Kg	B)	25 Kg		
	C) 30 Kg	D)	35 Kg		
54.	The moment of inertia of circular lamina of to the plane of the lamina and passing thro				
	A) $\frac{\pi d^4}{12}$	B)	$\frac{\pi d^4}{16}$		
	C) $\frac{\pi d^4}{24}$	D)	$\frac{\pi d^4}{32}$		

55. Two loads of 50 kg and 75 kg are hung at the ends of a rope passing over a smooth pulley shown in figure below. The tension in the string is



- A) 50 kg
- C) 25 kg

- B) 75 kg
- D) 60 kg

56. A body of weight 300 KN is placed on a horizontal plane. If the coefficient of friction between the body and the horizontal plane is 0.25. Determine the horizontal force required to just slide the body

A) 50 KN

B) 65 KN

C) 75 KN

D) 85 KN

57. The forces whose line of action lie on the same lines are known as

A) Coplanar forces

B) Collinear forces

C) Concurrent forces

D) Equilibrant forces

58. A dimension is stated as 28 ± 0.02 mm in a drawing. What is the tolerance?

A) 28 mm

B) +0.02 mm

C) -0.02 mm

D) 0.04 mm

59. Which of the following is not the correct method of expressing a Fit under BIS system of limits and fits?

A) 50 H8/g7

B) 50 g7/H8

C) 50 H9-g7

D) 50 H9/g7

60. Identify the Pneumatic symbol.



A) Electric motor

B) Pump

C) Hydraulic motor

D) Accumulator

Α

61.	1. Telescopic gauge is used for						
	A) Meas	suring inside	size of slots or ho	les			
	B) Chec	king taper b	ores				
	C) Chec	king the clea	arance between m	ating su	rfaces		
	D) Chec	k pitch of the	e given screw				
62.	In a M20	thread, M d	enotes				
	A) Metri	С		B)	Millimeter		
	C) Mors	е		D)	Major diameter		
63.	The leas	st count of Ve	ernier bevel protra	ctor is			
	A) 1°		B) 0.5°	C)	5′	D) 5"	
64.	The mini	imum edge d	listance for rivets	of diame	eter (d) in steel pla	ates shall be	
	A) 2d		B) 3d	C)	1.5d	D) 2.5d	
65.		ngine conve	_	y from t	fuel combustion c	or any other source	
	A) Elect	rical work		B)	Mechanical work		
	C) Press	sure work		D)	None of these		
66.	The ignit	tion quality o	f petrol is express	ed by			
	A) Ceta	ne number		B)	Octane number		
	C) Calor	rific value		D)	All of these		
67.	General	gas equatior	n is				
	A) pv =	RT		B)	pv = mRT		
	C) pv =	constant		D)	pv ⁿ = constant		
68.	A systen	n which is co	mpletely uninfluer	nced by	the surrounding is	s called	
	A) Oper	System		B)	Closed System		
	C) Isolat	ted System		D)	Properties of Sys	stem	

69. When a process are performed on a system in such a way that the fir identical with initial state known as				at the final state is	
	A) State of a system		B)	Thermodynamic	cycle
	C) Thermodynamic p	property	D)	Zeroth Law of Th	ermodynamics
70.	The extension line sh	ould extend 3 mm be	yon	d the	
	A) Outline		B)	Centre line	
	C) Dimension line		D)	Hidden line	
71.	The amount of heat temperature, without	•		_	rom its saturation
	A) Sensible heat of v	vater	B)	Latent heat of va	porization
	C) Enthalpy of steam	1	D)	Entropy of steam	
72.	If petrol is used in a d	liesel engine, then			
	A) Low power will be	produced	B)	Efficiency will be	low
	C) Higher knocking v	vill occur	D)	Black smoke will	be produced
73.	When the whole body	is sectioned at its mid-	dle,	then the sectional v	view is obtained is
	A) Half section		B)	Full section	
	C) Off-set section		D)	Broken section	
74.	The formula for finding	g the volume of a sol	id sp	ohere is	
	A) $\frac{1}{3}\pi r^3$		B)	$\frac{4}{3}\pi r^3$	
	C) $\frac{3}{4}\pi d^3$		D)	$\frac{4}{3}\pi r^2 h$	
75.	If $x + y = 32$ and $x - y$	y = 10, then the value	of x	is	
	A) 11	B) 22	C)	42	D) 21
76.	Find the mean in the	numbers 18, 22, 15,	32, ⁻	10, 23, 20.	
	A) 20	B) 32		18	D) 15
Α		-12	2-		

77.	A pyramid with a squ	are base has		_ Faces.		
	A) 4	B) 5	C)	6	D) 8
78.	Melting point of ice is					
	A) 0°F	B) 100°C	C)	100°F	D) 32°F
79.	If the circumference of cm ² .	of the square is 16 cm	the	n the are	a of the sa	me is
	A) 16	B) 32	C)	64	D) 25
80.	The lateral developm	ent of a cylinder is of			shape.	
	A) Triangle		B)	Circle		
	C) Ellipse		D)	Rectang	le	
81.	In a cabinet type of o	blique projection, the	rece	eding edg	e is taken a	as
	A) Half	B) Full		85%) Double
82.	When a 10 cm line in scale of drawing is	a drawing represents	a 5	cm edge	of an actua	al object then the
	A) 1:1	B) 5:10	C)	1:2	D) 2:1
83.	Lines of hidden edge	s are drawn with				
	A) Continuous thick I	ines	B)	Dashed	lines	
	C) Alternately long a	nd short lines	D)	Wavy lin	es	
84.	If a line is inclined at	45° to the HP and 30°	o to t	the VP, its	s front view	is inclined at
	A) 30° to XY		B)	Between	30° and 4	5° to XY
	C) 45° to XY		D)	Greater	than 45°	
85.	What is the nominal s	shape of septic tank?				
	A) Square		B)	Circular		
	C) Rectangle		D)	Oval		
Α		-13	3-			

86.	6. Which gas is mainly produced in septic tank?			
	A) Oxygen	B)	Nitrogen	
	C) Hydrogen	D)	Hydrogen sulphide	
87.	Which type of trap is used in Indian water of	clos	et?	
	A) S Trap	B)	P Trap	
	C) U Trap	D)	Gully Trap	
88.	What is the first stage in sewage treatment	pro	ocess?	
	A) Sedimentation	B)	Filtration	
	C) Screening	D)	Softening	
89.	Which device is used to prevent sewer gas	es	from entering the building?	
	A) Filter	B)	Ventilator	
	C) Vacuum Pump	D)	Trap	
90.	What is the name of the water coming out	of th	ne kitchen, bathroom, wash basin?	
	A) Sullage	B)	Garbage	
	C) Sewage	D)	Discharge	
91.	Poise is the unit of			
	A) Mass density			
	B) Kinematic viscosity			
	C) Viscosity			
	D) Velocity gradient			
92.	Mass per unit volume is known as			
	A) Specific gravity	B)	Density	
	C) Viscosity	D)	Discharge	
93.	Manometer is a device used for measuring			
	A) Pressure at any point in a fluid			
	B) Velocity at any point in a fluid			
	C) Discharge of a fluid			
	D) Temperature at any point in a fluid			

94.	Th	e increase of temperature				
	A)	Increase the viscosity of liquid				
	B)	Decrease the viscosity of liquid				
	C)	Decrease the viscosity of gas				
	D)	Partially increase or decrease the	e viscosit	у	of liquid	
0.5	D:4	at Tuba is used for massacras	-4			
95.		ot Tube is used for measurement				
	A)	Pressure	В)	Discharge	
	C)	Temperature	D)	Fluid flow velocity	/
96.	ΑI	Francis Turbine is				
	A)	An impulse turbine	В)	A radial flow impu	ulse turbine
	C)	An axial flow turbine	D)	A reaction radial	flow turbine
97.	An	object situated in first quadrant, t	that mear	າຣ		
	A)	Below HP and behind VP	В)	Above HP and be	ehind VP
	C)	Above HP and in front of VP	D)	Below HP and in	front of VP
98.	Th	e Standard size of D3 Drawing bo	oard is			
	A)	700 × 500 × 25 mm	В	()	700 × 500 × 15 m	nm
	C)	500 × 350 × 25 mm	D)	500 × 350 × 15 m	nm
	,			,		
99.	Do	decahedron is a solid having		е	qual and regular	pentagons.
	A)	10 B) 11	С	;)	12	D) 15
100.		e view drawn by taking actual d lled	limension	١ ١	without preparing	isometric scale is
	A)	Isometric View	В)	Isometric Project	ion
	C)	Oblique Projection	D)	Perspective Proje	ection

Space for Rough Work

A -16-