MIZORAM PUBLIC SERVICE COMMISSION

TECHNICAL COMPETITIVE EXAMINATION FOR THE POST OF INFORMATICS OFFICER UNDER INFORMATION & COMMUNICATION TECHNOLOGY DEPARTMENT, GOVERNMENT OF MIZORAM. NOVEMBER, 2024

TECHNICAL PAPER - III

Time Allowed: 2 hours Full Marks: 200 All questions carry equal marks of 2 each. Attempt all questions. 1. What is a project? (a) An ongoing work effort with no specific objectives (b) A temporary endeavour undertaken to create a unique product, service, or result (c) A repetitive process that follows an organization's procedures (d) A continuous effort to improve business operations 2. Keeping schedules for different tasks within a project is called – (a) Task scheduling (b) Process scheduling (c) Project scheduling (d) Process management 3. Which phase of the project management takes longest time? (a) Conceptualization (b) Planning (c) Execution (d) Wrapping up 4. Which term refers to a collection of projects, programs, sub portfolios, and operations managed as a group? (a) Project management (b) Program management (c) Portfolio management (d) Strategic management 5. Which type of PMO has the highest degree of control over projects? (a) Supportive (b) Controlling (c) Directive (d) Advisory **6.** The definition of project stakeholder may not include – (b) Client (a) Project team (c) Investors (d) Competitors 7. What is an example of an organizational process asset that can be used during project planning? (a) Geographic distribution of resources (b) Risk control procedures (c) Project life cycle approach (d) Political climate 8. In which type of organizational structure are dedicated project teams most commonly found?

(b) Functional organizations

(d) Joint ventures

(a) Matrix organizations

(c) Projectized organizations

			- 2 -	1
9.	Whic	h of the following is typically true:	about cost and sta	affing levels in a project life cycle?
		They remain constant throughout		
	(b)	They are highest at the start of the	e project.	
	(c)	They are highest during the closin	g phase.	
	(d)	They peak as the work is carried	out and drop rap	idly towards closure.
10.		erarchy of authority goes	in the organizatio	n, the responsibility becomes more specific
	(a)	Down	(b)	Up
	(c)	Further	(d)	Back
11.	Proje	ect management process phases in	general may be -	-
	(a)	Initiation, planning, execution, mo	nitoring, conclusi	on
	(b)	DPR, funding, tendering, contract		
	(c)	Initiation, approval, advertisement	t, recruitment, joi	ning
	(d)	Proposal, approval, execution, ter	mination	
12.	Whic	ch of the following is not a project r	nanagement soft	ware?
	(a)	Wrike	(b)	Asana
	(c)	Angino	(d)	Trello
13.		ch Process Group involves coordin roject management plan?	nating people and	resources to complete the work defined in
	(a)	Initiating Process Group	(b)	Planning Process Group
	(c)	Executing Process Group	(d)	Monitoring and Controlling Process Group
14.		t term describes the raw observation rry out project work?	ns and measuren	nents identified during activities performed
	(a)	Work performance information	(b)	Work performance data
	(c)	Work performance reports	(d)	Project deliverables
15.		project management in which diffe stakeholders are coordinated to en		nents of the project such as tasks, resources of a project is termed as –
	(a)	Aggregation Management	(b)	Sub-to-Major Phasing
	(c)	Generalization Phasing	(d)	Project Integration Management
16.		ch of the following tools and technical interpretation in the control of the cont	iques is used in th	e Direct and Manage Project Work process
	(a)	Meetings	(b)	Risk Analysis
	(c)	Resource Levelling	(d)	Earned Value Management (EVM)
17.	Whic	ch of the following is an output of	the Monitor and	Control Project Work process?
	(a)	Project Charter	(b)	Change Requests
	(c)	Project Schedule Network Diagra	am (d)	Stakeholder Engagement Plan
18.	Cost	overrun is a term used in the proje	ect management	where –
	(a)	The funding agency could not fun	nd the future proje	ect
	(b)	There is excess spending on mate	rial supply	
	(c)	The estimated cost of the project	has been exceed	led
	(d)	There is misunderstanding between	en finance and te	chnical section of the company

19.	Which one of the following may least likely be a phase in quality management?				
	(a)	Quality planning	(b)	Quality assurance	
	(c)	Quality control	(d)	Quality testing	
20.	Cons	ider the following statements:			
		I. Too much stress on quality makes ineffi	cient	operation	
		II. Negligence on quality makes inefficient	oper	ation	
		III. There should be balance in stressing or	ı qua	lity of a project	
		IV. There is no 'too much' stress on quality		•	
	` '	I, and II are correct	` ′	II and III are correct	
	` '	I, II and III are correct	` ′	All are correct	
21.		ocess in quality management wherein certain st follow correct tract during the development or			
	(a)	Quality control	(b)	Quality assurance	
	(c)	Quality description	(d)	Customer satisfaction survey	
22.	Defin	ning how quality may be measured will be docu	umen	ted as -	
	(a)	Processes to be followed	(b)	Defining quality metrics	
	(c)	Defining quality requirements	(d)	Defining acceptance criteria	
23.	What	t is the key difference between accuracy and p	recis	ion?	
	(a)	Both accuracy and precision are measures of	corr	ectness	
	(b)	Both accuracy and precision are measures of	exac	etness	
	(c)	Accuracy measures exactness, while precisio	n me	asures correctness	
	(d)	Precision measures exactness, while accuracy	y mea	asures correctness	
24.	Impr	oper management of human resource negative	ly res	ults to –	
	I.	Some worked overload while others relax			
	II.	Low productivity and dissatisfaction among e	mplo	yees	
	III.	High salary of CEOs			
	(a)	Ionly	(b)	I and II only	
	(c)	II and III only	(d)	All of them	
25.	Optin	nal human resource allocation means –			
	(a)	High efficiency and workability of employees	alon	e	
	` '	Balance of work efficiency, satisfaction and p	ay		
	٠,	Felicitation of good performing employees			
	(d)	Withholding salary of bad performing employ	ees		
26.		th level of hierarchy is tasked with detailed-leve work, motivation etc?	l hun	nan resource management such as efficiency,	
	(a)	Project Manager	(b)	Team Manager	
	(c)	CEO	(d)	Vice Chairman	
27.	Follo	wings are the resource management tools, exc	ept-	-	
	(a)	Ganttic	(b)	Teamdeck	
	(c)	Toggl Plan	(d)	resMange	
28.	What	t is a disadvantage of working with virtual tean	ns?		
		Improved collaboration	(b)	Enhanced team cohesion	
	(c)	Reduced communication needs	(d)	Increased possibility of misunderstandings	

29.	Com	munication between stakeholders, project team	s, ac	tivity incharges etc will be managed in the -
	(a)	Sustainability management	(b)	Project human-resource management
	(c)	Project plan management	(d)	Project communication management
30.	the or	communication is communication of terganization whereas communicati		embers, with different level of hierarchy in
	public		OII II.	TOTAL THE PROPERTY OF THE PROP
	-	Unofficial, official	(b)	Internal, external
	(c)	Bottom-up, top-down	(d)	Oral, written
31.		process of managing communications in the nunication amongst activities, teams and interest		
				Control communication management
	(c)	Communication reengineering management	(d)	Informal communication management
32.		type of communication method is suitable for ve e recipients access the information at their disc	-	-
	(a)	Push communication	(b)	Pull communication
	(c)	Interactive communication	(d)	Static communication
33.	Whic	h of the following is NOT a dimension of commu	nicati	on in Project Communications Management?
	(a)	Internal and external	(b)	Vertical and horizontal
	(c)	Formal and informal	(d)	Dynamic and static
34.	Proje	ect risk due to organizational change is a type of	of-	
	(a)	Internal risk	(b)	External risk
	(c)	Management risk	(d)	Strategic risk
35.	Whic	ch one of the following is not considered as ext	ernal	risk?
	(a)	Environmental factors	(b)	Market fluctuations
	(c)	Performance risk	(d)	Legal and regulatory change
36.	Whic	ch of the following is closest to a subset and or	der o	frisk management?
	(a)	Analyze, Prioritize, Assign, Respond	(b)	Assign, Prioritize, Respond
	(c)	Monitor, Prioritize, Respond	(d)	Prioritize, Identify, Analyze
37.	Whic	ch of the following is a key technique for category	orizii	ng risks in a project?
	(a)	Brainstorming	(b)	SWOT analysis
	(c)	Risk probability assessment	(d)	Root cause analysis
38.	Whic	ch of the following is an example of a mitigation	ı acti	on?
	(a)	Purchasing insurance for financial risks	` .	Accepting a risk and taking no action
	(c)	Cancelling a risky project	(d)	Redesigning a system to include redundancy
39.	Proje	ect procurement management determines the e	xtern	al resource required at which process?
	(a)	Planning procurement	` ′	Conducting Procurement
	(c)	Identification of requirements	(d)	Stakeholder meeting
40.		key procurement documents such as Request nge Request Forms etc are created at the time	_	roposal (RFP), Statement of Work (SOW),
	(a)	Procurement planning	(b)	. .
	(c)	Requirement analysis	(d)	Stakeholder meeting

41.	41. A kind of procurement system wherein the client is not having very clear intention on how or what procurement to be done, but invites proposal and interested party may not quote a fixed price, but					
	required to submit their proposal so that some kind of procurement contract may be signed in the future is called –					
		Request for Proposal	(b)	Expression of Interest		
	` ,	Detailed Project Proposal		E-Tendering		
42.	Whic	ch role in a project is most likely to handle negoti urements phase?	` ′	č		
		Procurement administrator	(h)	Project coordinator		
	` `	Project manager		Project sponsor		
12	` ′		` ,	•		
43.	finan	ch type of contract provides a fixed total price cial incentives?				
	` '	Time and Materials Contract	` '	Cost Plus Fixed Fee Contract		
	(c)	Cost Plus Award Fee Contract	(d)	Firm Fixed Price Contract		
44.	-	oject procurement process within which to ensunterrupting the operation is taken care in the p				
	(a)	Planning Procurement	(b)	Procurement Analysis		
	(c)	Controlling Procurement	(d)	Closing Procurement		
45.	Whic	ch of the following best describes a stakeholde	r?			
	(a)	People directly involved with the project or vits outcomes.	vhose	interests may be impacted by the projector		
	(b)	A group of people or an individual impacted with the project.	l by t	he project's outcomes or directly involved		
	(c)	A group of people or an individual directly in impacted by the project, its outcomes, or decistakeholders.				
	(d)	A group of people or an individual directly is impact the project or its outcomes.	nvolv	ved with the project or whose interests may		
46.	The	stakeholders' ability to influence a project high	est ir	which of the stage?		
		In the early stages		Half-way through		
	` .	Depends on their role and position	` ,	Just before final delivery		
47.	` '	oad building project, which one of the followi	no m	ay not be the stakeholder?		
		Villagers whose village is connected by that r	_	ay not do the statement.		
	` ′	Competing contractor who didn't get the pro				
		Public Works Department	,,,,			
		Contractor selected to execute road making				
48		· ·	ino t	he needs of people or groups who have an		
701	The process of identifying, analyzing, and managing the needs of people or groups who have ar interest in a project with a goal to build strong relationships with interested persons or groups communicate effectively, and ensure the project's success is called –					
		Project manpower management		Resource management		
		Stakeholder management		Project revenue management		
49.		ch of the following is not included in the impor		-		
771	Proje	ct Management Institute?				
	` ′	Customers		Competitors		
	(C)	Cost	(a)	Communication		

50.				eve whereas is what the p	oroject	
		d do during its lifetime.	/L \	Title chiestine		
		Scope, aim Objective, scope	` '	Title, objective Aim, objective		
	` '	*	` /	•	.1	
51.	 A phase within a project lifecycle that is conducted in order to make sure the project follow correct track to complete the project is — 					
		Tracking and Evaluation		Monitoring and Control		
	(c)	Monitoring and Satisfaction survey	(d)	Evaluation and Monitoring		
52.	-	project charter is typically authored by which e		•		
		Project Manager	` ´	Project Sponsor		
	(c)	Project Management Office (PMO)	(d)	External Consultant		
53.	Whic	h of the following is a key benefit of the "Dev	elop l	Project Management Plan" process?		
	(a)	It defines the project procurement processes.	•			
	` '	It identifies key stakeholders and their roles i		- ·		
		It provides a central document that defines the				
	(d)	It outlines the detailed project schedule and b	oudge	et.	•	
54.		th of the following describes the process for main that been baselined?	nakin	g changes to the Project Managemen	nt Plan	
	(a)	Changes are made through a formal change req Change Control process.	uest a	and approved through the Perform Inte	egrated	
	(b)	All changes are made informally by the proje	ct tea	ım.		
	(c)	Changes are made only by the project sponsor	or wil	thout any formal process.		
	(d)	No changes are allowed once the plan is base	elineo	i .		
55.		ch of the following configuration managements are correct and that corresponding changes a			ıration	
	(a)	Configuration Identification	(b)	Configuration Status Accounting		
	(c)	Configuration Verification and Audit	(d)	Configuration Baseline Managemen	t	
56.	WBS	in project management is –				
	(a)	A hierarchical tool that helps organize a promanageable components.	ject l	by breaking it down into smaller and	d more	
	(b)	A process defining how the project should be	exec	cuted in timely manner.		
	(c)	A sub-system within project management that	t deal	with resource mobilization.		
	(d)	A workable solution provided by a team of e	xpert	ts.		
57.	.,	process of getting sign-off from the project	clien	nt is usually within the phase under	scope	
		Scope validation	(b)	Scope planning		
	` ,	Scope finalization	` '	Controlling scope		
5 0	• •	process wherein the collected requirements of so	` ,	-	rintion	
30.	and a	icts as a reference point for the future is –			приоп	
		Scope requirement		Scope planning		
	(c)	Scope control	(d)	Scope definition		
59.	Whic	ch one of the following may not be included as	s a pro	ocess in the project scope manageme	ent?	
	(a)	Planning scope management	(b)	Collection of requirements		
	(c)	Creating work breakdown structure	(d)	Timeline management		

60.	Whic	ch one of the following may not be included in	the p	roject time management?
	(a)	Activity definition	(b)	Schedule development
	(c)	Scope requirement	(d)	Resource estimation
61.	The s	scope baseline consist of which of the followin	g elei	ments?
	(a)	Scope Statement, WBS, WBS Dictionary	_	
	(b)	Scope Statement, Risk Management Plan, W	BS	
	(c)	WBS Dictionary ,Project Management Plan,	Scop	pe Statement
	(d)	Project Management Plan, WBS, Scope State	emei	nt
61.		ıl, a project manager, realized his project's wo		
		t. As his colleague, you suggest using a WBS n		ering system:
	` '	Which determine the complexity of the project		
		Which will help to automate WBS using appr		
	` '	To Provide a hierarchical structure for each V To present risks of the project	ea w	element
		•		annon airt af tha annon mannon ant mìom?
03.		ch of the following is NOT typically included a Process for preparing a detailed project scop		· -
		Process for obtaining formal acceptance of co		
	` *	Process for creating the project risk manager	_	
		Process to control changes to the detailed pr		-
64.	The	process of plotting the start and end dates for e	ach a	activity as well as the analysis of the order of
	_	ities, timelines, resources, and schedule barrie		
	(a)	Activity sequencing	(b)	Schedule controlling and monitoring
	(c)	Schedule development	(d)	Draft schedule for approval
65.	Amo	ing the following, which one may be least affect	cted b	by bad project time management?
	(a)	Productivity	(b)	Stakeholder satisfaction
	(c)	Resource optimization	(d)	Team member satisfaction
66.		project team should identify and schedule dif		-
		ect life cycle in the project time management p		
		Activity definition	٠	Activity requirement
	` '	Activity scheduling	` '	Activity duration estimation
67.	-	endencies in project time management is not d	irectl	ly related to –
	` ′	Resources required for activity to start		
	` '	Activities to be done before the activity unde		
	. ,	Finding list of activities which are depending	on th	ne activity under consideration
	` '	Activity that requires revision		
68.		ttom-up estimating, what happens if an activit		
	• •	The project schedule is adjusted to reflect the		
	` '	The activity is decomposed into more detail,		resource needs are re-estimated
		A contingency reserve is added to the budge	t	
	` ′	The project scope is revised		
69.		ch process is closely coordinated with Estimate		
	(a)	Develop Project Charter	(b)	Define Resources

(c) Estimate Costs

(d) Plan Quality Management

		-	- 8 -				
70.		ch of the following is essential to ensur	e the proje	ct stays within the approved budget in the			
	(a)	Requirement control	(b)	Cost escalation			
	(c)	Budget estimation	(d)	Cost control			
71.	71. A three-point estimate method of a project budget includes -						
	(a) Best-case, worst-case and most likely						
	(h)	Mannayyan aget material aget and mann	ing cost				

- (b) Manpower cost, material cost and running cost
- (c) Revenue expenditure, capital expenditure and unforeseen expenditure
- (d) Estimate, adapt and re-estimate
- 72. The traditional project management triangle consists of the following constraints
 - (a) Time, cost and scope

(b) Manager, team and customer

(c) Resource, time and cost

- (d) Schedule, quality and profit
- 73. Expenses incurred by a firm on recruitment, training & development of employees are treated as
 - (a) Current costs

(b) Incremental costs

(c) Replacement costs

(d) Implicit costs

- 74. Cost variance is calculated by:
 - (a) Subtracting planned value from actual cost
 - (b) Subtracting actual cost from earned value
 - (c) Subtracting budget at completion from earned value
 - (d) Subtracting BAC from ETC
- 75. If the Cost Performance Index (CPI) is greater than 1.0, what does it indicate?
 - (a) The project is under budget
- (b) The project is over budget
- (c) The project is ahead of schedule
- (d) The project is behind schedule
- 76. If Avion Computers employed eighty permanent employees in October who were on the same salary, what would have been the effect on labour costs if they had replaced twenty permanent employees with interim staff each on monthly salaries of USD 3,000?

Sales turnover & profit for October

Avion Computers (October)	Actual in USD	Target in USD
Sales turnover	2,77,350	3,25,000
Sales Tax (14%)	38,829	45,500
Net Turnover	2,38,521	2,79,500
Labour Cost	1,66,000	1,75,000
Other Costs	36,000	41,000
Gross Profits	36,521	63,500

(a) Decrease of USD 130,000

(b) Decrease of USD 20,750

(c) Increase of USD 18,500

- (d) Increase of USD 2,075
- 77. Lalliani began her math class by saying: I'm thinking of 5 numbers such that their mean is equal to their median. If 4 of the numbers are 14, 8, 16, and 14, what is the 5th number Lalliani is thinking of?
 - (a) 14

(b) 15

(c) 16

(d) 18

78. Find the missing number –

25	125	9	45
6	30	?	65

(a) 13

(b) 56

(c) 60

(d) 15

79. A total of 800 copies of a pendrive were sold. 60% were sold at a 50% discount, 20% were sold at a 30% discount and the remainders were sold at the full price of Rs.895. What was the approximate total revenue in Rupees?

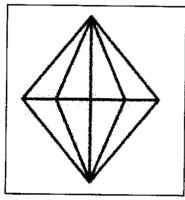
(a) 9109

(b) 4579

(c) 1243

(d) 8956

80. How many triangles are there in a given figure?



(a) 12

(b) 28

(c) 24

(d) 14

81. Study the following arrangement carefully and answer the question given below –

"6 R O T 4 A 8 % B F 1 E # W @ 9 H I \$ M N * 3 2 V \$ 5 G P 7 Q"

How many such vowels are there in the above arrangement, each of which is immediately preceded by a letter but immediately not followed by a symbol?

(a) One

(b) Two

(c) Three

(d) Four

82. Study the following arrangement carefully and answer the question given below –

"6 R 0 T 4 A 8 % B F 1 E # W @ 9 H I \$ M N * 3 2 V \$ 5 G P 7 Q"

Three of the following four are alike in a certain way based on their positive in the above arrangement and so form a group. Which is the one that does not belong to that group?

(a) 4#G

(b) \$H9

(c) V*C

(d) 5R0T

83. Analyze the below arrangement carefully and try to answer below question:

"SL1R%4JE#7MT2I9BH3A\$9FQ5DG6USP"

Which element is 14th from the left side?

(a) 8

(b) 9

(c) 6

(d) 4

84.	Arrai	nge the words given below in a meaning				
		1. Doctor 2. Prescribe 3. Medic			5. Diagnose	
		3, 1, 4, 5, 2	` '	3, 1, 2		
	` '	3, 1, 4, 2, 5	` ,	4, 1, 5		
85.	four	his question, read the passage of inform options and read the question thorough answers only on the information given in the control of the c	nly to ensure in the passag	you kr e.	now what the question entails. Base	
	"Rare earth elements, also known as rare earth metals are a group of seventeen chemica elements in the periodic table. Contrary to their name, rare earth elements are relatively plentiful in the Earth's crust, with cerium as abundant as copper. However, these elements are rarely found in largest enough deposits to make mining financially viable, hence the name rare earth. Currently over 90% of global rare earth element supply is met by the people's republic of China, despite only holding 23% of the world's proven reserves of these metals. China has been steadily decreasing its quotas of rare earth element exports due to environmental concerns, depleted reserves and difficulties with industry regulation, which may lead to shortages of rare earth elements in future years".					
	Wha	t is not a reason for lower rare earth ele	ment export	s in Ch	ina?	
	(a)	Environmental Issues	(b)	Regula	ation Issues	
	(c)	Depletion of resources	(d)	Interna	ational Competition	
86.		e following the question, choose the wor QUIPEDALIAN:	rd which bes	st expre	sses the meaning of the given word-	
	(a)	Sickness	(b)	Upset		
	(c)	Long	(d)	Find		
87.	Selec	ct the word or phrase which is closes to	the OPPOS	ITE in	meaning of LIMPID:	
	(a)	Clear	(b)	Limpi	ng	
	(c)	Dark	(d)	Hate		
88.		question below, there is a sentence of whether which are labelled P, Q, R and S to pro-				
	Whe	n he				
		did not know				
	_	he was nervous and				
		heard the hue and cry at midnight				
		what to do				
		Proper sequence should be:	(1.)	nana		
	` ,	RQPS	` ′	PSRQ SRPQ	•	
		PSRQ	. ,		•	
89.	to th	uestion given below, a part of the sentence italicised part which may improve the	e sentence. (
		you <u>lend me few rupees</u> in this hour of		•		
		lend me any rupees			w me a few rupees	
	(c)	lend me a few rupees	(d)	iend n	ne rupees	

- **90.** Read the following five sentences and rearrange them to make a coherent and logical paragraph. After deciding the sequence, answer the questions given below.
 - 1. A case in point is the programme involving the Rihan Dam which would displace about 200,000 people.
 - 2. Critics decry the fact that a major development institution appears to absorb more capital than it distributes to borrowers.
 - 3. For all its faults critics however, concede that the bank remains a relatively efficient instrument for distribution of development-aid money.
 - 4. One of the key complaint focuses on this non-profit bank's recent "profitability"
 - 5. Although the lives of millions of people around the globe have been improved by the bank's activities, it is now under fire.
 - 6. The bank is also being blamed for large-scale involuntary resettlement to make way for dams and other construction projects.

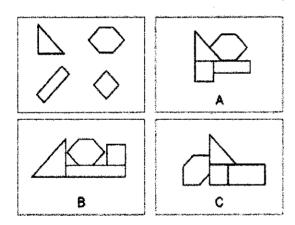
Re-arrange sentences in correct sequence:

(a) 6,3, 5, 2, 1, 4

(b) 2, 4, 5, 6, 1,3

(c) 4, 3, 1, 5, 2,6

- (d) 3, 5, 4, 1, 2,6
- 91. From a given shapes below, which figure can be made from these shapes without resizing?



(a) Only A

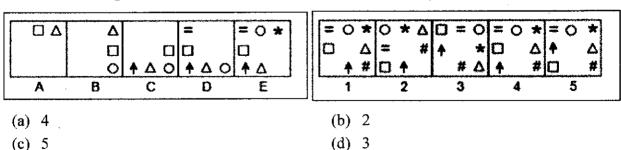
(b) Only B

(c) A and C

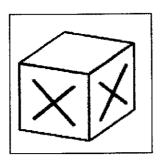
- (d) A and B
- **92.** Observe the problem figures given and select one option from the answer figures which will continue the same pattern followed in the problem figures?

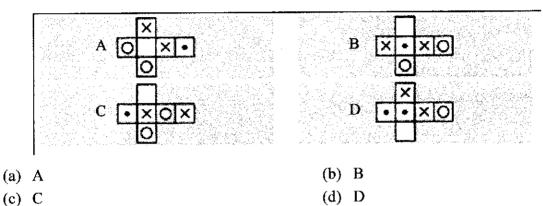
Problem Figures:

Answer Figures:

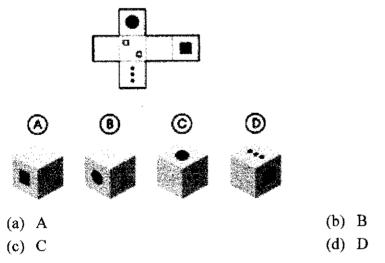


93. Find the pattern that can be folded into the object below:

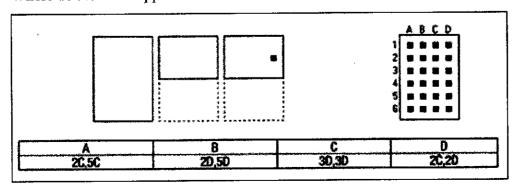




94. If the net was folded into a cube, which of the given shapes would it look like?



95. The drawing shows a piece of paper which has been folded. The dashed lines indicate the whole sheet, each drawing represents a single fold. The black square shows where a hole was punched. Where do the holes appear when the sheet is unfolded?



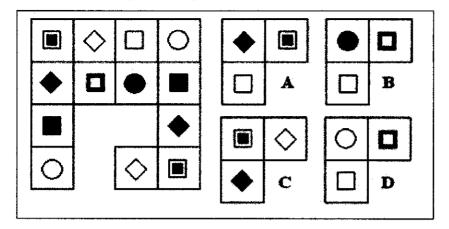
(a) A

(b) B

(c) C

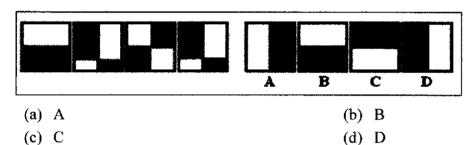
(d) D

96. Which figure completes the grid?

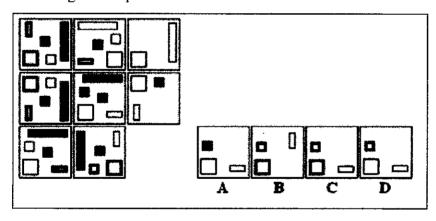


- (a) A
- (c) C

- (b) B
- (d) D
- 97. Which figure completes the series?



98. Which figure completes the series?



(a) A

(b) B

(c) C

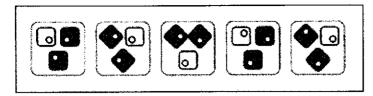
- (d) D
- **99.** If in a certain code language, "URBANISTIC" is coded as "VTEEOKVXJE", then how "VERMINOSIS" be coded in the same code language?
 - (a) WGHQWEROPI

(b) XTYHJUYTDF

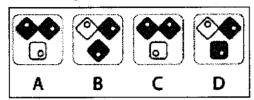
(c) WGUQJPRWJU

(d) WEFGTYULKJ

100. In a given series, what comes next in the sequence? Given Series:



Answer Figure:



- (a) A
- (c) C

- (b) B
- (d) D
