JEE Main 2022 Paper 2A (B.Arch) Jun 23 Shift 1 Question Paper

Conducted by the National Testing Agency (NTA)

Time Allowed: 3 Hours **B.Arch** **Maximum Marks: 400**

General Instructions

(i) This is **Paper 2A (B.Arch)** of **JEE (Main) 2022**, conducted by the National Testing Agency on **23 Jun 2022**.

(ii) The paper contains **82 questions**; attempt **77** as specified in the section table. The maximum score is **400 marks**.

(iii) Multiple choice questions have four options. Select one answer. Each correct answer carries **4 marks**; an incorrect answer carries **−1 mark**.

(iv) Numerical value questions carry **4 marks** for a correct answer and **−1 marks** for an incorrect answer. Unanswered questions carry **0 marks**.

(v) The Drawing section contains **two questions of 50 marks each**. Follow the alternatives and instructions printed within each question.

(vi) In Mathematics Section B, attempt **any five of the ten** numerical value questions.

Section	Questions	To attempt	Marks
Mathematics Section A	20	20	80
Mathematics Section B	10	5	20
Aptitude Test	50	50	200
Drawing	2	2	100

Mathematics Section A

1. 4 marks

The set $\left\{\theta : \frac{\pi}{2} \le \theta \le \frac{3\pi}{2},\ \theta \neq \pi,\ \cot^2\theta + 3\,\text{cosec}\theta + 3 < 0\right\}$ is equal to :

(1) $\left(\frac{\pi}{2}, \frac{4\pi}{3}\right) - \{\pi\}$

(2) $\left(\frac{7\pi}{6}, \frac{3\pi}{2}\right)$

(3) $\left(\frac{4\pi}{3}, \frac{3\pi}{2}\right)$

(4) $\left(\pi, \frac{7\pi}{6}\right)$

---

2. 4 marks

Let $f : \mathbf{R} - \{4\} \to \mathbf{R} - \{1\}$ and $g : \mathbf{R} \to \mathbf{R}$ be defined by $f(x) = \frac{x}{x-4}$ and $g(x) = 4x + 3$.

If $(fog)^{-1}(\alpha) = 0$ for some α, then $\frac{g(\alpha)}{f(\alpha)}$ is equal to :

(1) 21

(2) -21

(3) $\frac{-1}{21}$

(4) 7

---

3. 4 marks

The sum of the modulus of all the roots of the equation $(x-1)\ (x+1)\ (2x+1)\ (2x-3) = 15$ is :

(1) $\frac{55}{8}$

(2) $\frac{9}{2}$

(3) $\frac{11}{2}$

(4) $\frac{23}{2}$

---

4. 4 marks

The locus of complex number $z = x + iy$, $z \neq -2i$, satisfying $\left|\frac{z - 3i}{z + 2i}\right| = \frac{\sqrt{2}}{\sqrt{3}}$ is :

(1) a straight line parallel to the x-axis

(2) an ellipse with eccentricity $\sqrt{\frac{2}{3}}$

(3) a circle with centre $(0, -13)$

(4) a circle with radius $5\sqrt{6}$

---

5. 4 marks

For two 3×3 matrices A and B, $AB = BA$. Consider the following two statements :

(S1) If A^3 is skew-symmetric and B^2 is symmetric, then $(AB)^6$ is symmetric.

(S2) If A^3 is symmetric and B^2 is skew-symmetric, then $(AB)^6$ is skew-symmetric.

(1) Both (S1) and (S2) are true

(2) Only (S1) is true

(3) Only (S2) is true

(4) Both (S1) and (S2) are false

---

6. 4 marks

Let $\lambda, \mu \in \mathbf{R}$. For which one of the following ordered pairs (λ, μ), the system

$$3x - y + z = 1$$
$$2x - 3y + \lambda z = \mu$$
$$x + y + 3z = -1$$

has no solution ?

(1) $(-4, 1)$

(2) $(4, 3)$

(3) $(-4, 3)$

(4) $(4, 1)$

---

collegedunia

7. 4 marks

There are 21 terms in a sequence S of which the first 11 terms form an A.P. with common difference 2 and the last 11 terms are in a G.P. with common ratio $\frac{1}{2}$. If the middle terms of both A.P. and G.P. are same, then the 11^{th} term of S is :

(1) $\frac{320}{31}$

(2) $\frac{160}{31}$

(3) $\frac{160}{63}$

(4) $\frac{64}{33}$

---

8. 4 marks

$\lim\limits_{x\to\infty} x \log_e \left(e\left(1+\frac{1}{x}\right)^{1-x}\right)$ is equal to :

(1) $\frac{1}{2}$

(2) $\frac{2}{3}$

(3) $\frac{3}{2}$

(4) 1

---

9. 4 marks

If $y\sqrt{x^2+1} = \log_e\left(\sqrt{x^2+1}-x\right)$, then :

(1) $(x^2+1)y' + xy - 1 = 0$

(2) $(x^2+1)y'' + 3xy' + y = 0$

(3) $(x^2+1)y'' + xy' - y = 0$

(4) $(x^2+1)y' + 2xy + 1 = 0$

---

10. 4 marks

Consider the following statements

(S1) $1\cdot2+2\cdot3+3\cdot4+\ldots\ldots+n\cdot(n+1)\le\frac{n(n^2+40)}{10}$

(S2) $1\cdot3+3\cdot5+5\cdot7+\ldots\ldots+(2n-1)\cdot(2n+1)\le\frac{4n^2(2n+3)}{5}$

Then, for any $n\in N$,

(1) both (S1) and (S2) are true

(2) both (S1) and (S2) are false

(3) only (S1) is true

(4) only (S2) is true

---

collegedunia

11. 4 marks

The value of the integral $\int_0^1 \tan^{-1}(1-x+x^2)\,dx$ is :

(1) $\frac{\pi}{4}-\frac{1}{2}\log_e 2$

(2) $\frac{\pi}{2}-\log_e 2$

(3) $\log_e 2$

(4) $\pi+\log_e 2$

---

12. 4 marks

Let $\vec{a}=x\hat{i}+\hat{j}+\hat{k}$, $\vec{b}=y\hat{i}+2\hat{k}$ and $\vec{c}=2\hat{j}+y\hat{k}$ be three vectors such that projection of $\vec{a}$ on $\vec{b}$ is $\frac{4}{\sqrt{5}}$ and projection of $\vec{a}$ on $\vec{c}$ is $\frac{3}{\sqrt{5}}$. If $|\vec{c}|<3$ and $|\vec{a}|<6$, then $\vec{a}\cdot(\vec{b}\times\vec{c})$ is equal to :

(1) -7

(2) -5

(3) 9

(4) 16

---

13. 4 marks

A rod of length 11 units moves in such a way that its ends A and B are on the lines $2x-3y=0$ and $3x+2y=0$, respectively. The mid-point of the rod lies on a :

(1) circle of radius 11 units

(2) circle of radius $\frac{11}{2}$ units

(3) parabola whose latus rectum is of length 11 units

(4) parabola whose latus rectum is of length $\frac{11}{2}$ units

---

14. 4 marks

Consider the following differential equation

$$\frac{dy}{dx} = \frac{e^{2y} + x^2}{x^3}, \; x > 0.$$

If $y(e) = 1$, then $y(1)$ is equal to :

(1) $-\frac{3}{2}$

(2) $\log_e(\sqrt{3})$

(3) $\log_e\left(\frac{1}{\sqrt{5}}\right)$

(4) $\log_e\left(\frac{1}{\sqrt{3}}\right)$

---

15. 4 marks

A light ray is thrown from the point (2, 0). After reflecting from y-axis at (0, 2), if this ray divides the line segment of the line $x + y = 3$ in the first quadrant in the ratio m : n (m < n), then $\frac{2n - m}{2n + m}$ is equal to :

(1) $\frac{9}{11}$

(2) $\frac{11}{13}$

(3) $\frac{5}{7}$

(4) $\frac{2}{3}$

---

16. 4 marks

The distance between the two points on the hyperbola $x^2 - y^2 = 60$, where the tangents are parallel to the line $y = 2x$, is :

(1) $6\sqrt{10}$

(2) 20

(3) 10

(4) $10\sqrt{2}$

---

17. 4 marks

Let Q be the mirror image of the point (2, 3, 4) with respect to the plane $2x - y + z + 4 = 0$. Then Q lies on :

(1) $x - y + 3z + 5 = 0$

(2) $x + 2y + 3z - 10 = 0$

(3) $\frac{x - 6}{5} = y - 8 = \frac{z - 5}{2}$

(4) $\frac{x + 6}{5} = y + 8 = \frac{z + 5}{3}$

---

18. 4 marks

For some $p \in \mathbf{R}$, let the line (L_1) $\frac{x-1}{2} = \frac{y-1}{p} = \frac{z-2}{2}$ intersect the line L_2 passing through the point A(1, 2, 0) and parallel to the plane $x+y+z=1$. If L_1 lies on the plane $2x+3y-4z=3$, then the line L_2 is :

(1) $\frac{8x-5}{-3} = \frac{4y-3}{-5} = \frac{8z-13}{13}$

(2) $\frac{4x-5}{1} = \frac{2y-3}{-1} = \frac{4z-13}{13}$

(3) $\frac{8x-5}{3} = \frac{4y-3}{5} = \frac{4z-13}{-13}$

(4) $\frac{8x+5}{-13} = \frac{4y+3}{-11} = \frac{8z-13}{13}$

19. 4 marks

Let the mean of the data 2, 6, 12, 8, k, 20 be 12. If m and σ^2 are the mean deviation about the median and the variance of the data respectively, then $\frac{\sigma^2}{m}$ is equal to :

(1) 9

(2) 10

(3) 12

(4) 18

20. 4 marks

The negation of $(p \rightarrow \sim p) \wedge ((\sim q) \rightarrow q)$ is equivalent to :

(1) $(\sim p) \rightarrow q$

(2) $p \rightarrow q$

(3) $(\sim p) \rightarrow (\sim q)$

(4) $p \rightarrow \sim q$

collegedunia

Mathematics Section B

21. Numerical value · 4 marks

Let $\binom{n}{k}$ denote the number of ways of choosing k objects out of n distinct objects.

If $\sum_{k=1}^{20}\binom{20}{k}\binom{20}{k-1}(-1)^k+\sum_{k=0}^{20}\binom{20}{k}^2(-1)^k+\sum_{k=0}^{21}\binom{21}{k}^2(-1)^k=p\binom{19}{10}$, then p^2-p is equal to

_____.

22. Numerical value · 4 marks

If the largest area of a rectangle inscribed in an equilateral triangle, such that a side of the rectangle is on a side of the triangle, is $\frac{25}{2}\sqrt{3}$ unit^2, then the perimeter (in units) of the triangle is _____.

23. Numerical value · 4 marks

Let [t] denote the greatest integer less than or equal to t. The number of points where the function $f(x)=\begin{cases}x^2+2x+2 & \text{if } x\le -1\\ \left[x^2+\frac{1}{4}x+\frac{5}{3}\right] & \text{if } -1<x<1\\ x^2-2x+4 & \text{if } x\ge 1\end{cases}$ is not continuous, is _____.

24. Numerical value · 4 marks

The number of 6-digit numbers formed by using all the digits 1, 3, 4, 5, 6, 8 and divisible by 11, is _____.

25. Numerical value · 4 marks

Let two elements (a, b), (c, d) be selected randomly from the Set

$S=\{(m, n) : m, n \in \{1, 2, ..., 10\}, m \neq n\}$.

If the probability that $a+b=c+d$ is p, then $(45)^2$ p is equal to :

26. Numerical value · 4 marks

If the length of a common tangent to $x^2+y^2=16$ and $9x^2+25y^2=225$, between the points of contact is L, then $32L^2$ is equal to _____.

---

27. Numerical value · 4 marks

Let $f_n(x)=\sum_{j=1}^{n}\cot^{-1}\left(1-(x+j)+(x+j)^2\right)$ for all $x\geq 0$. Then $\sum_{j=1}^{10}(j^2+1)\sin^2(f_j(0))$ is equal to

_____.

---

28. Numerical value · 4 marks

If the area enclosed by the curves $y=2x^2-1$ and $|x|=3-2y$ is A, then 12 A is equal to

_____.

---

29. Numerical value · 4 marks

If the roots of the equation $x^2+(\sqrt{3}-\sqrt{2}-1)x+(\sqrt{3}-2-\sqrt{6}+2\sqrt{2})=0$ are

$\tan\frac{A}{2}$ and $\tan\frac{B}{2}$, $0<A, B<\pi$, then the value of $12\sec^2 4(A+B)$ is equal to _____.

---

30. Numerical value · 4 marks

The value of $2\int_{-1}^{4}(|x-3|+[x])\,dx$, where $[x]$ denotes the greatest integer less than or equal to

x, is _____.

---

31. 4 marks

Which of the following architect is famous for working with bricks and mud ?

(1) Zaha Hadid
(2) Laurie Baker
(3) Christopher Benninger
(4) Frank Loyd Wright

---

32. 4 marks

An office building was built with of 10 floors. It's ground floor is having height of 4 m including slab thickness and all other floors are of 3500 mm height including slab thickness. What is the total height of the building in meters :

(1) 35 meters
(2) 31.5 meters
(3) 35.5 meters
(4) 39 meters

---

33. 4 marks

Match **List-I** with **List-II** :

	List-I		**List-II**
(A)	Amer fort	(I)	Chand Minar
(B)	Agra fort	(II)	Intricate Jali Work
(C)	Qutub minar	(III)	Pietra Dura Work
(D)	Daulatabad fort	(IV)	Tapering Tower

(1) (A)-(IV), (B)-(II), (C)-(I), (D)-(III)
(2) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
(3) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
(4) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)

---

34. 4 marks

Name the three primary colours in the colour wheel :

(1) Red, Orange and Yellow
(2) Green, Orange and Yellow
(3) Red, Yellow and Blue
(4) Blue, Purple and Orange

---

35. 4 marks

Ajanta and Ellora in Aurangabad district of Maharashtra state are famous for _____.

(1) Intricate carvings of Hindu temples

(2) Mountains

(3) Rock cut caves

(4) Forest

---

36. 4 marks

Match the Honorific given to the freedom fighters in **List-I** with their names in **List-II** :

	List-I		**List-II**
(A)	Netaji	(I)	Vallabhbhai Patel
(B)	Punjab Kesari	(II)	Subhash Chandra Bose
(C)	Iron man of India	(III)	Nana Patil
(D)	Krantisinh	(IV)	Lala Lajpat Rai

Choose the **correct** answer from the options given :

(1) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)

(2) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

(3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)

(4) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)

---

37. 4 marks

Harappa and Mohenjodaro of Indus Valley are situated in which country as per current world map ?

(1) Pakistan

(2) Afganistan

(3) Bangla Desh

(4) Nepal

---

38. 4 marks

Which of the following famous architect has designed the university of Agriculture and science at Bangalore ?

(1) Achyut Purshottam Kanvinde

(2) Sanjay Puri

(3) Laurie Baker

(4) Anant Raje

---

39. 4 marks

If the distance between two points on a map measures 10 cm. If the scale of given map is 1 : 500, what is the actual distance between these two points on ground :

(1) 50 cm
(2) 25 cm
(3) 50 m
(4) 25 m

40. 4 marks

These days Green Architecture is promoted because :

(1) It costs less initially
(2) It lasts longer
(3) It uses good colours
(4) It is environment friendly

41. 4 marks

The growth of London city happened along which river ?

(1) River Nile
(2) River Thames
(3) River Mekong
(4) River Great Ouse

42. 4 marks

Who has designed the famous "Chhatrapati Shivaji Maharaj Vastu Sangrahalaya" at Mumbai ?

(1) George Wittet
(2) James Miller
(3) William Young
(4) Robert Mylne

43. 4 marks

Who is the painter of the famous painting Bharat Mata ?

(1) Raja Ravi Verma
(2) Nandalal Bose
(3) Abanindranath Tagore
(4) Ravindranath Tagore

44. 4 marks

The hanging gardens of babylon is presently located in which of the following country ?

(1) UAE
(2) Iran
(3) Turkey
(4) Iraq

collegedunia

45. 4 marks

Which of the following Indian City's planning is based on 'Vastu Purusha Mandla' method of planning ?

(1) Varanasi
(2) Rajkot
(3) Jaipur
(4) Tirupati

46. 4 marks

The world heritage site of Bhimbetka is situated in which State of India ?

(1) Uttarakhand
(2) Andhra Pradesh
(3) Madhya Pradesh
(4) Odisha

47. 4 marks

Gobind Sagar Lake is located in which of the following State of India ?

(1) Gujarat
(2) Himachal Pradesh
(3) Uttar Pradesh
(4) Rajasthan

48. 4 marks

'ADFF' is the abbreviation of _____.

(1) Architecture & Design Film Festival
(2) Architecture, Design & Fashion Festival
(3) Architectural Design Forum for Faculties
(4) Art & Design Forum of Faculties

49. 4 marks

Which of the following celebrity actor was part of the award winning movie "Which Annie Gives It those ones", which was based on life of student of architecture ?

(1) Amir Khan
(2) Shah Rukh Khan
(3) Salman Khan
(4) Akshay Kumar

50. 4 marks

Cool colours in the colour wheel can represent :

(1) Sunlight
(2) Heat
(3) Sky
(4) Darkness

51. 4 marks

Match the **List-I** with **List-II** :

	List-I		**List-II**
(A)	City of Sky Scrapers	(I)	Beijing, China
(B)	Cockpit of Europe	(II)	San Francisco, USA
(C)	Forbidden City	(III)	New York, USA
(D)	City of Golden Gate	(IV)	Belgium

(1) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)

(2) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

(3) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)

(4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

52. 4 marks

Given below are the names of UNESCO world heritage sites of India. Choose the correct sequence year wise in which they are declared as a UNESCO world heritage sites.

(A) Sun Temple, Konark

(B) Humayun's Tomb, Delhi

(C) Ajanta Caves, Maharashtra

(D) Fatehpur Sikri, Agra

(E) Jantar Mantar, Jaipur

(1) (E)-(B)-(D)-(C)-(A)

(2) (C)-(B)-(A)-(D)-(E)

(3) (C)-(A)-(D)-(B)-(E)

(4) (D)-(A)-(C)-(E)-(B)

53. 4 marks

Match the **List-I** with **List-II** :

	List-I		**List-II**
(A)	Nahargarh Fort	(I)	Hyderabad
(B)	Lakshmi Vilas Palace	(II)	Jodhpur
(C)	Chowmahalla Palace	(III)	Jaipur
(D)	UMAID Bhawan Palace	(IV)	Vadodra

(1) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)

(2) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

(3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)

(4) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)

54. 4 marks

Match the **List-I** with **List-II** :

	List-I		**List-II**
(A)	Aravali Range	(I)	Southern Part of India
(B)	Sirumali Hills	(II)	Western Part of India
(C)	Zask Range	(III)	Eastern Part of India
(D)	Garo Khasi Jaintia	(IV)	Northern Part of India

(1) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

(2) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

(3) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)

(4) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)

55. 4 marks

Match the **List-I** with **List-II** :

	List-I		**List-II**
(A)	Sibsagar Temple	(I)	Haveri, Karnataka
(B)	Lakshmana Temple	(II)	Assam
(C)	Dashavatara Temple	(III)	Lalitpur, Uttar Pradesh
(D)	Siddeshvara Temple	(IV)	Khajuraho

(1) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)

(2) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)

(3) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)

(4) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)

56. 4 marks

Given below are two statements :

Statement - I : Loktak Lake is famous for its floating village.

Statement - II : Loktak Lake is very rich in Biodiversity.

In the light of the above statements, choose the **most appropriate** answer from the options given below.

(1) Both **Statement I** and **Statement II** are correct

(2) Both **Statement I** and **Statement II** are incorrect

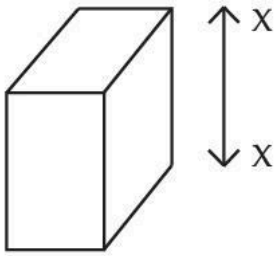
(3) **Statement I** is correct but **Statement II** is incorrect

(4) **Statement I** is incorrect but **Statement II** is correct

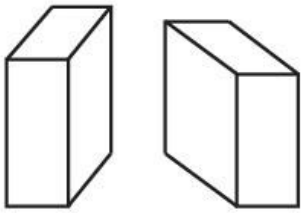
collegedunia

57. 4 marks

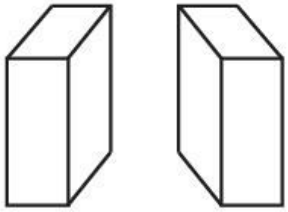
Which one of the answer figure is **correct** mirror image of the problem figure with respect to 'X-X' axis ?



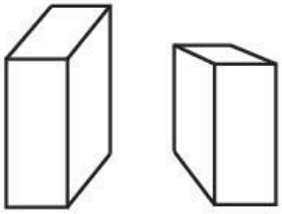
(1)



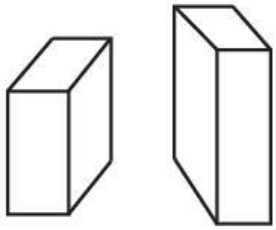
(2)



(3)

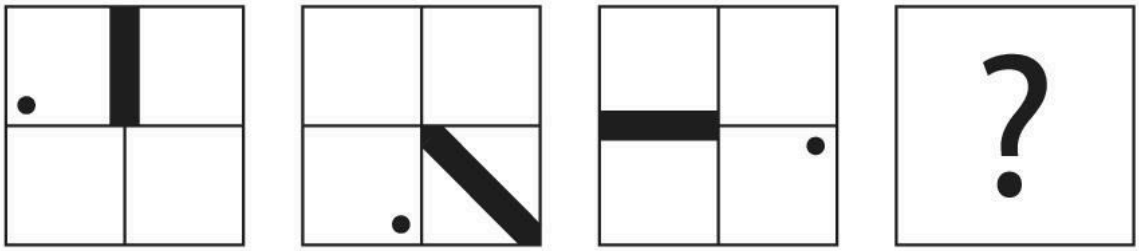


(4)

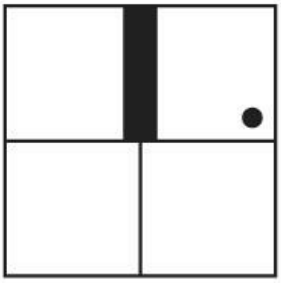


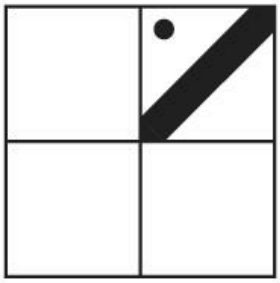
58. 4 marks

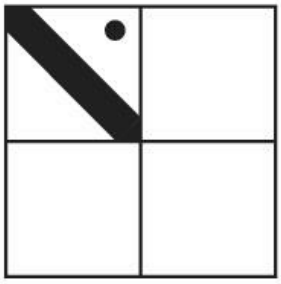
Question figure A, B and C shows series of configuration. Select the **correct** option from answer figure which will be best suitable for figure 'D' :

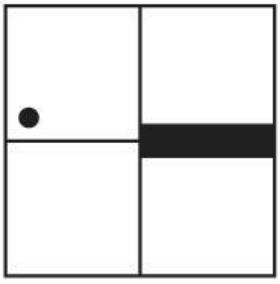


A B C D

(1) 

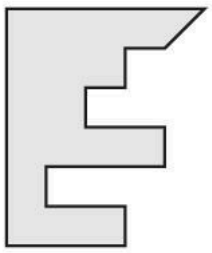
(2) 

(3) 

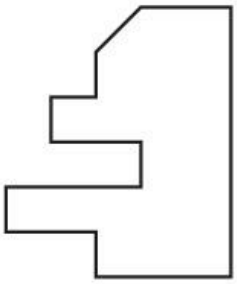
(4) 

59. 4 marks

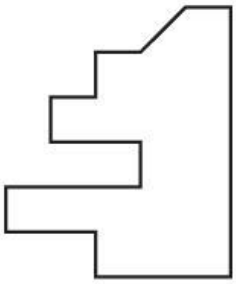
Given image in question figure is part of a square. Which of the following answer figure fit perfectly on it's right such that it will complete the square ?



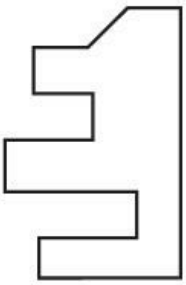
(1)



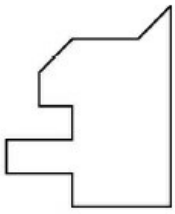
(2)



(3)

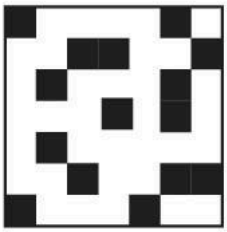


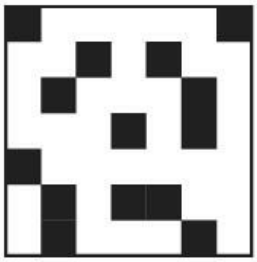
(4)

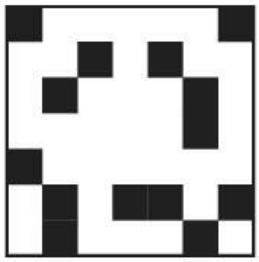


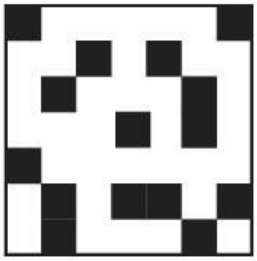
60. 4 marks

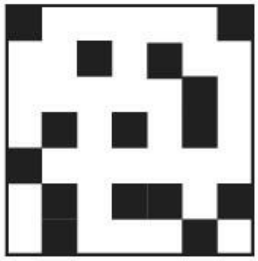
Select the answer figure which shows **correct** view of question figure after rotating it by 90° on it's right.



(1) 

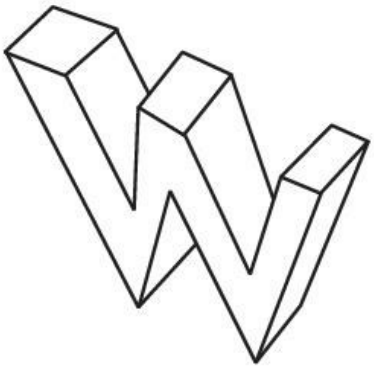
(2) 

(3) 

(4) 

61. 4 marks

Identify the number of surfaces in the Figure.



(1) 15

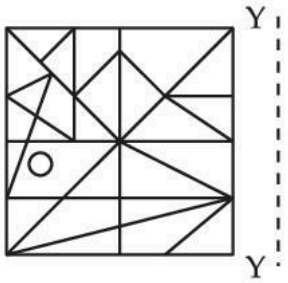
(2) 21

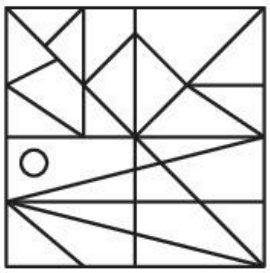
(3) 13

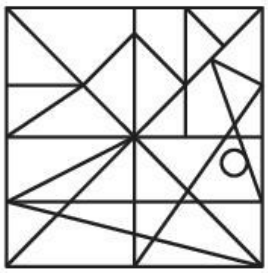
(4) 19

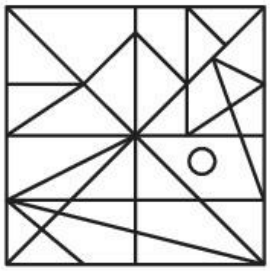
62. 4 marks

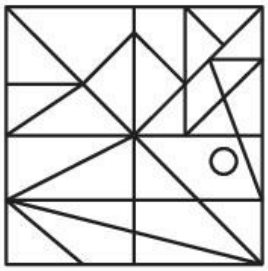
Which of the following answer figure is the **correct** mirror image of the problem figure with respect to Y-Y ?



(1) 

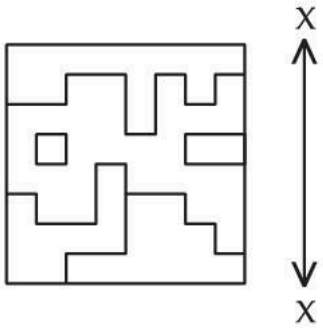
(2) 

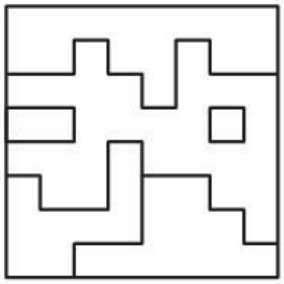
(3) 

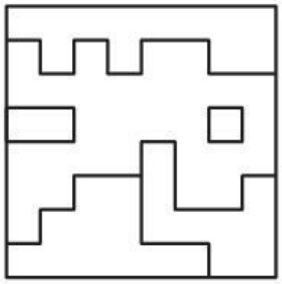
(4) 

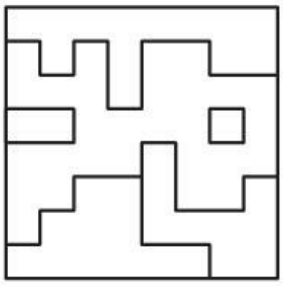
63. 4 marks

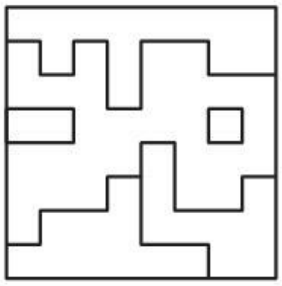
Which of the following answer figure is the **correct** mirror image of the problem figure with respect to 'X-X' ?



(1) 

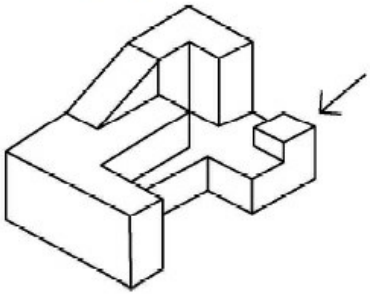
(2) 

(3) 

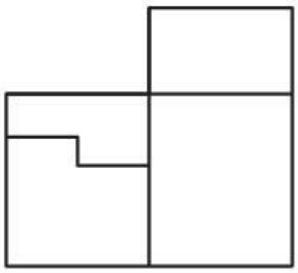
(4) 

64. 4 marks

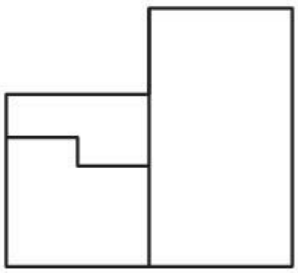
The 3D figure shows the view of an object. Looking in the direction of arrow, identify the **most appropriate** elevation from given answer figures.



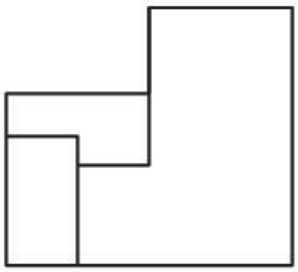
(1)



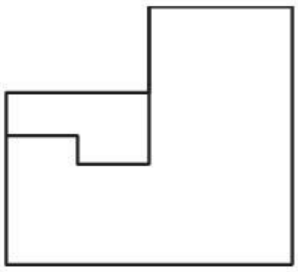
(2)



(3)

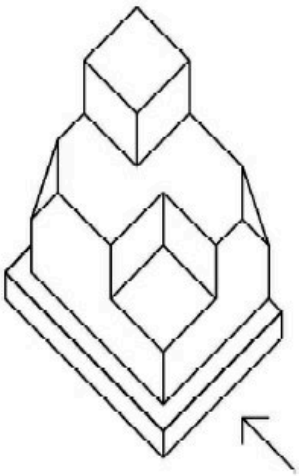


(4)

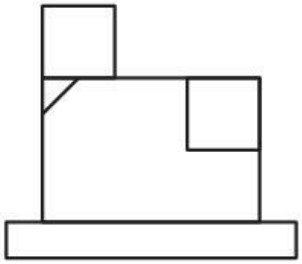


65. 4 marks

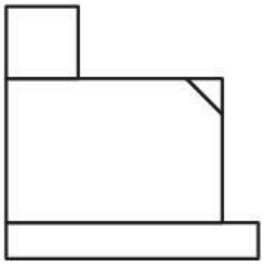
Question figure shows 3D view of an object. Looking in the direction of arrow, identify the **most appropriate** elevation from given answer figures.



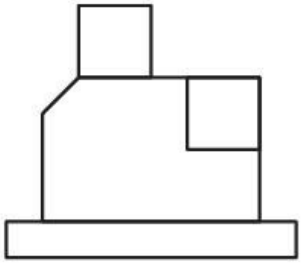
(1)



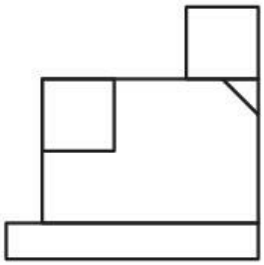
(2)



(3)

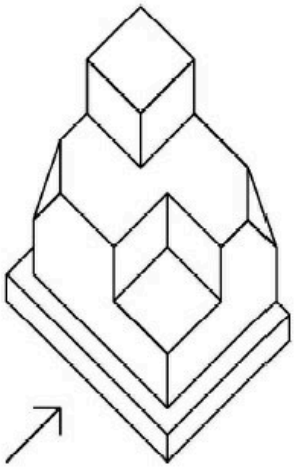


(4)

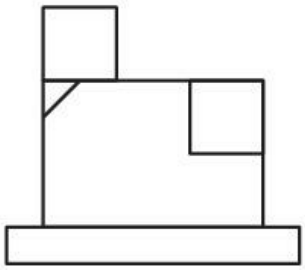


66. 4 marks

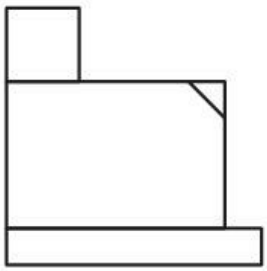
Question figure shows 3D view of an object. Looking in the direction of arrow, identify the **most appropriate** elevation from answer figures.



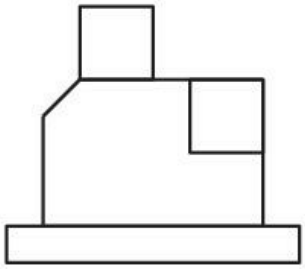
(1)



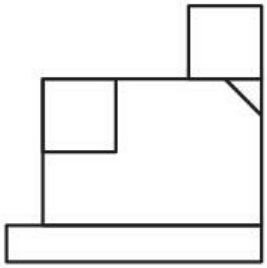
(2)



(3)

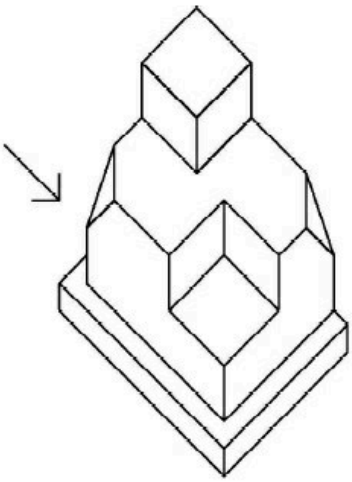


(4)

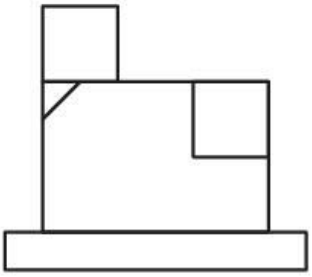


67. 4 marks

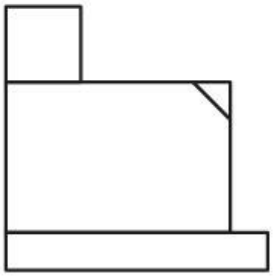
Question figure shows 3D view of an object. Looking in the direction of arrow, identify the **most appropriate** elevation from given answer figures.



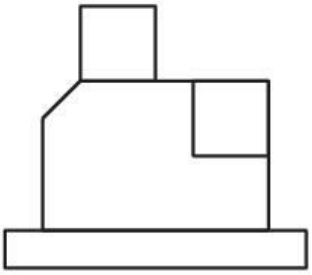
(1)



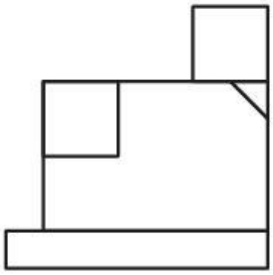
(2)



(3)

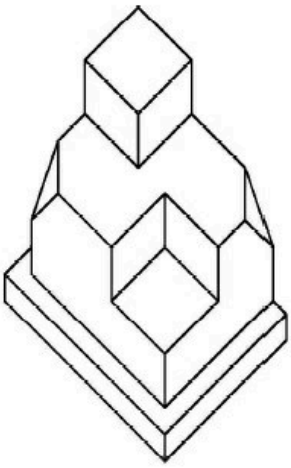


(4)

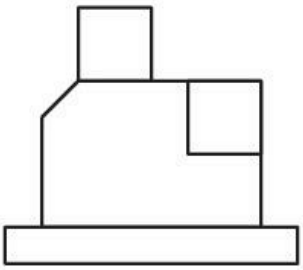


68. 4 marks

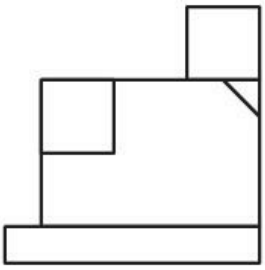
The problem figure shows the 3D view of an object. Identify the **most appropriate** top view, amongst the answer figures.



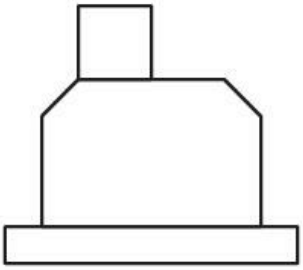
(1)



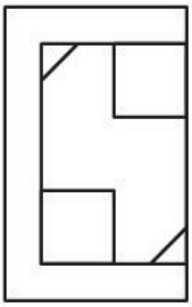
(2)



(3)

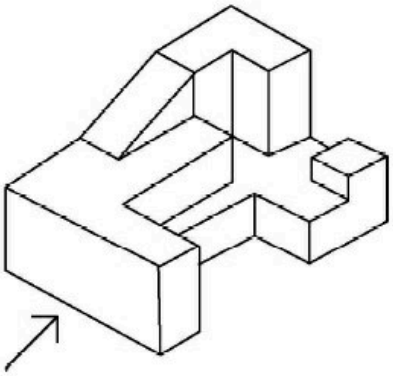


(4)

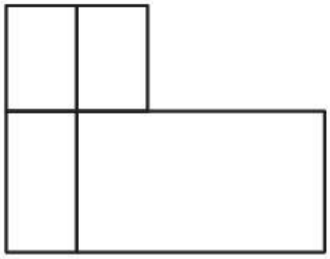


69. 4 marks

Question figure shows 3D view of an object. Looking in the direction of arrow, identify the **most appropriate** elevation from given answer figures.



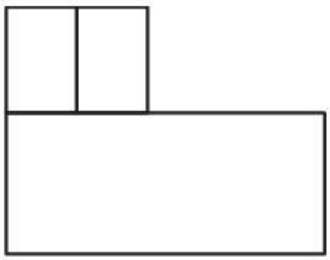
(1)



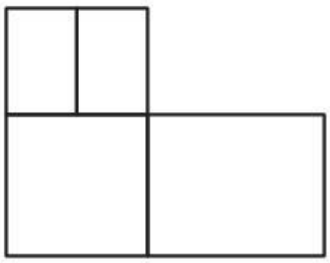
(2)



(3)

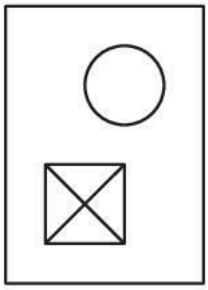


(4)

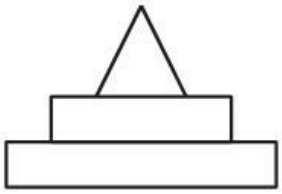


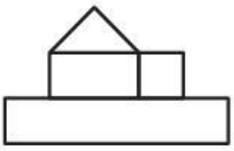
70. 4 marks

Question image shows the top view of an object. Looking in the direction of arrow, identify the **correct** elevation from answer figures.

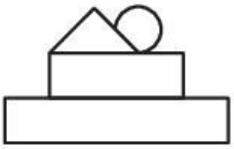




(1) 

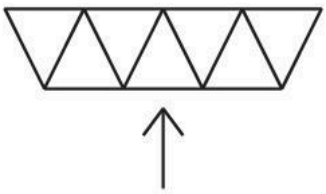
(2) 

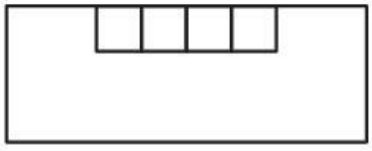
(3) 

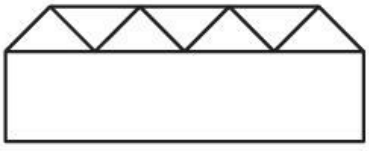
(4) 

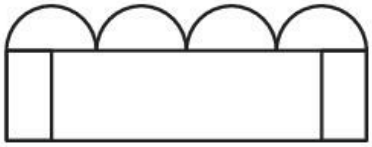
71. 4 marks

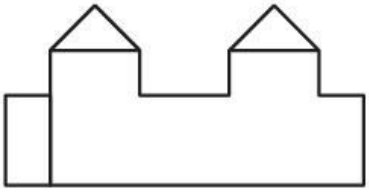
Question figure shows plan of an object. Looking in the direction of arrow, identify the **correct** possible elevation from given answer figures.



(1) 

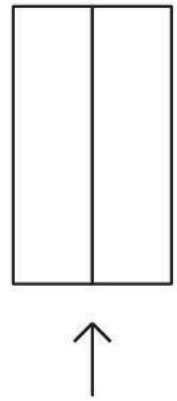
(2) 

(3) 

(4) 

72. 4 marks

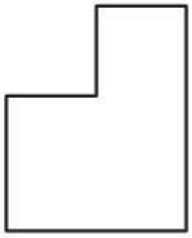
Question figure shows plan of an object. Looking in the direction of arrow, identify the 'INCORRECT' option from given possible elevations in answer figures.



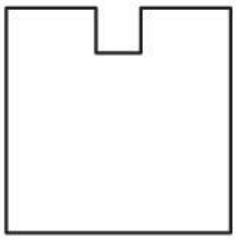
(1)



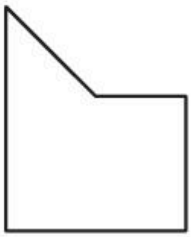
(2)



(3)

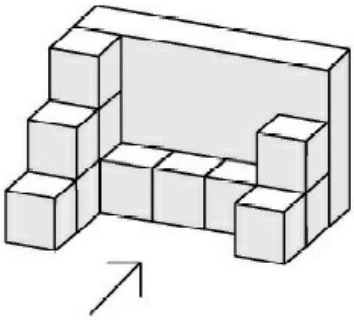


(4)

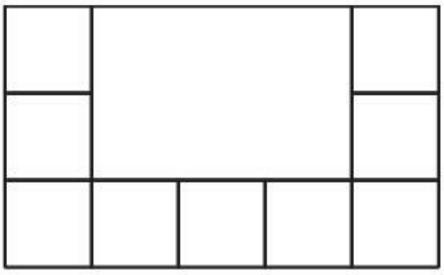


73. 4 marks

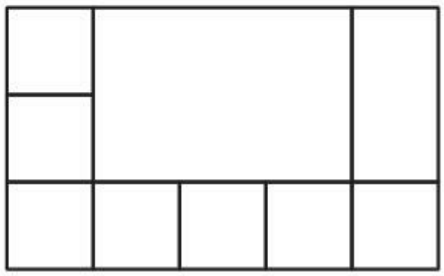
Question figure shows 3D view of an object. Looking in the direction of arrow, identify the **most appropriate** elevation from given answer figures.



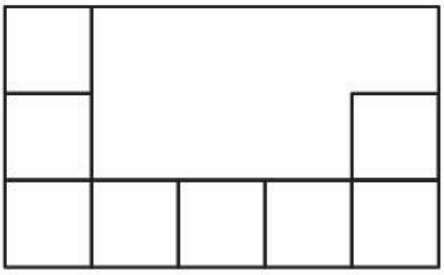
(1)



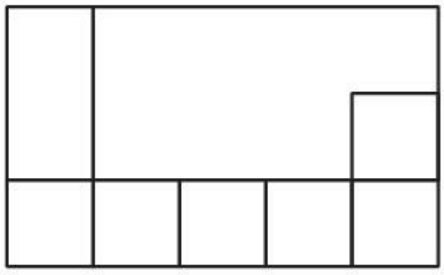
(2)



(3)

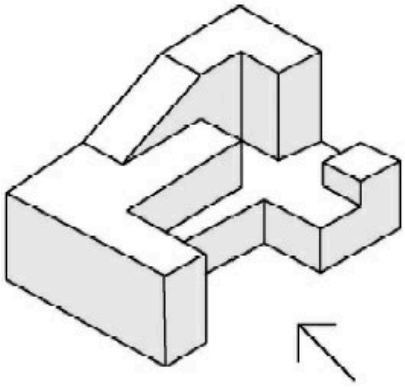


(4)

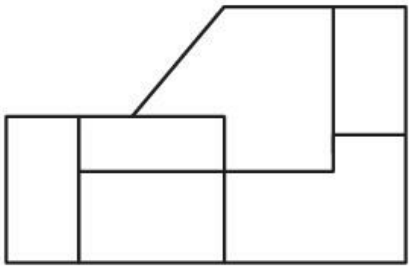


74. 4 marks

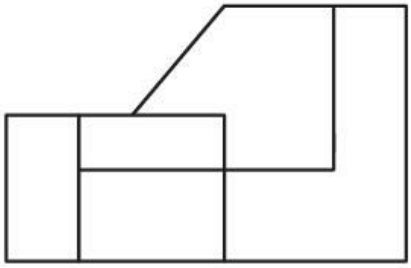
Question figure shows 3D view of an object. Looking in the direction of arrow, identify the **most appropriate** elevation from given answer figures.



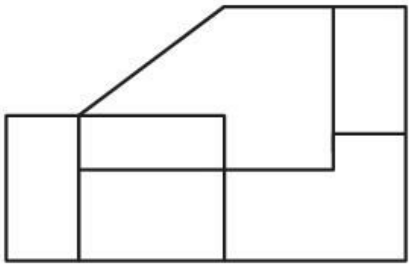
(1)



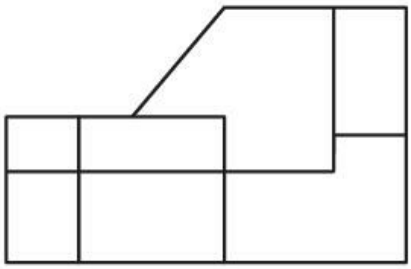
(2)



(3)

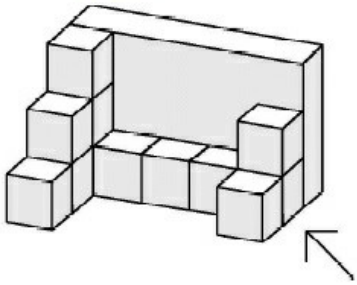


(4)

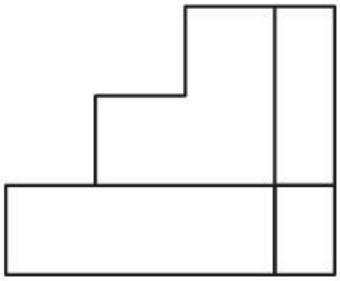


75. 4 marks

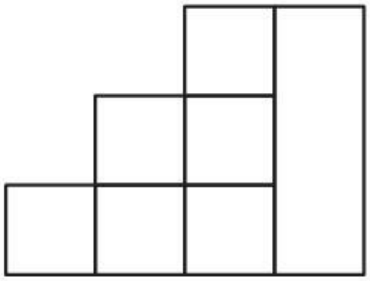
Question figure shows 3D view of an object. Looking in the direction of arrow, identify the **most appropriate** elevation from given answer figures.



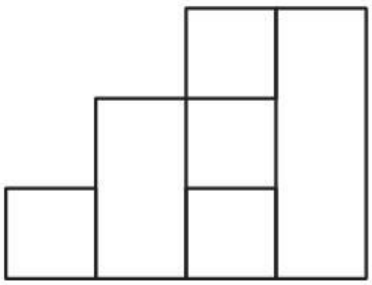
(1)



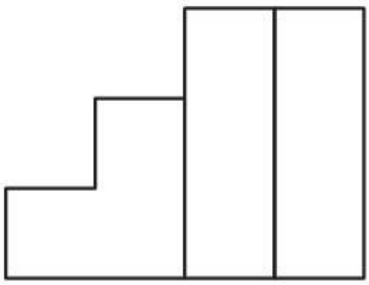
(2)



(3)

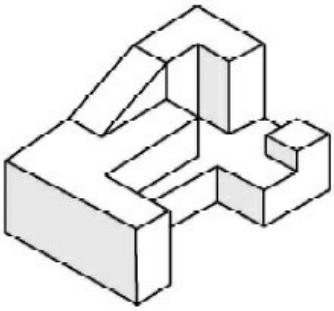


(4)

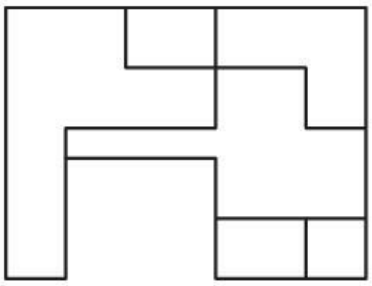


76. 4 marks

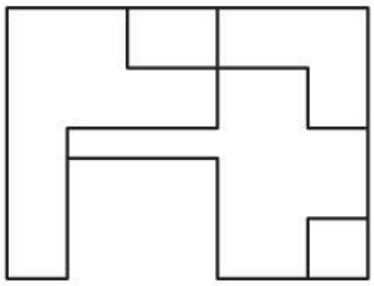
Question figure shows the 3D view of an object. Identify the **most appropriate** top view/ plan of a given object from answer figures.



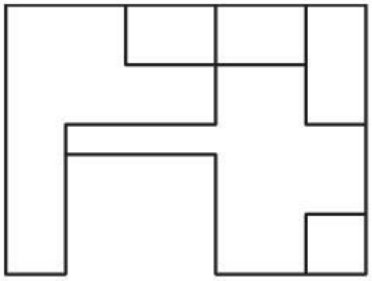
(1)



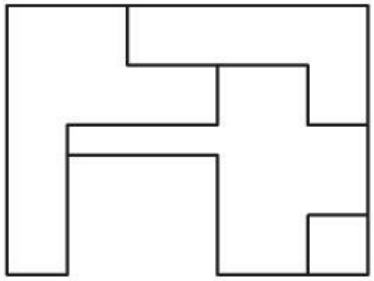
(2)



(3)

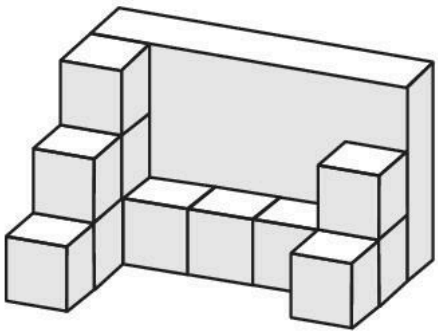


(4)

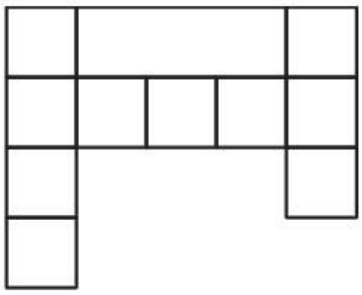


77. 4 marks

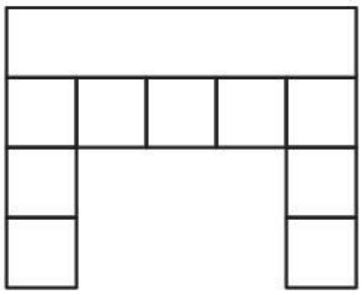
Question figure shows 3D view of an object. Identify the **correct** top view/plan of a given object from answer figures.



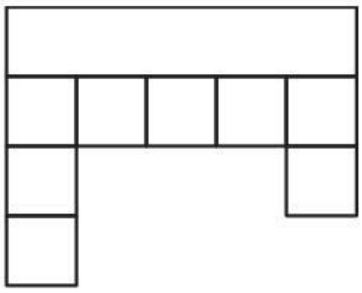
(1)



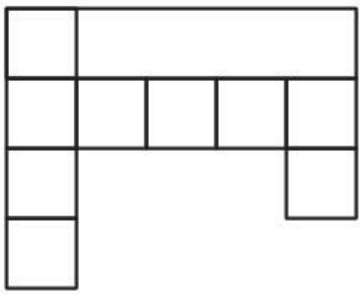
(2)



(3)

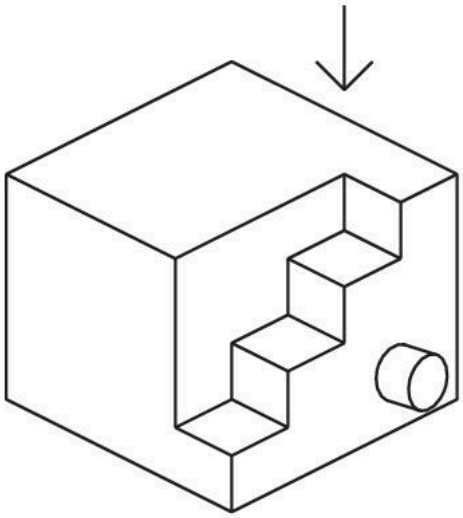


(4)

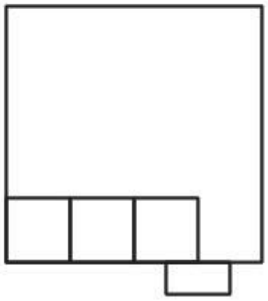


78. 4 marks

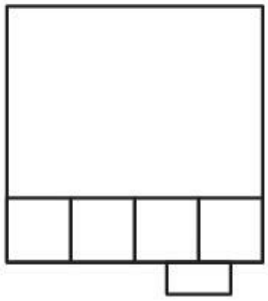
Question figure shows 3D view of an object. Identify the **correct** top view/plan of a given object from answer figures.



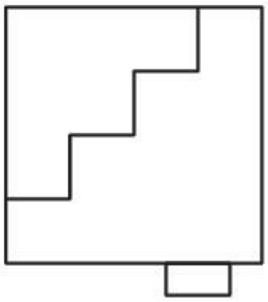
(1)



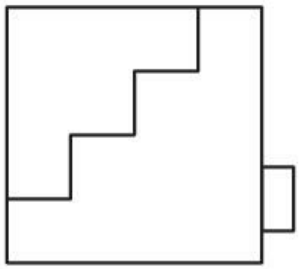
(2)



(3)

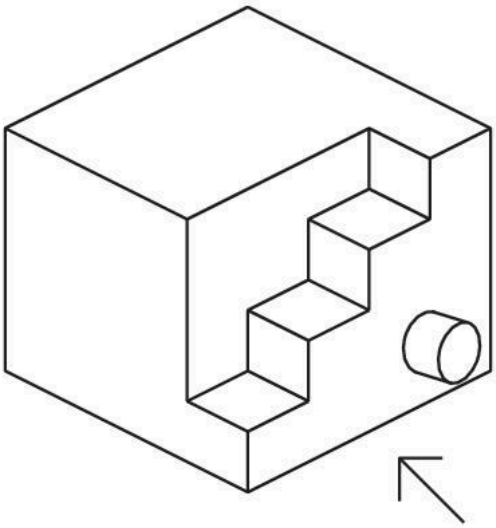


(4)

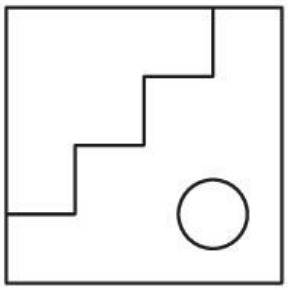


79. 4 marks

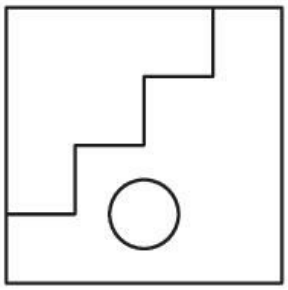
Question figure shows 3D view of an object. Looking in the direction of arrow, identify the **correct** elevation from given answer figures.



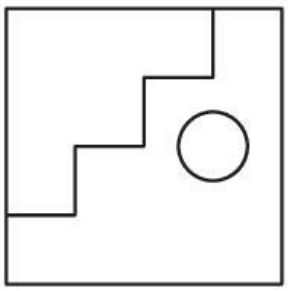
(1)



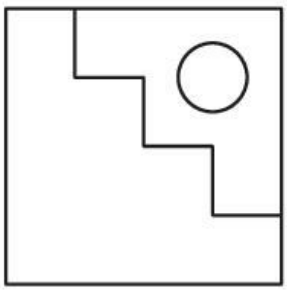
(2)



(3)

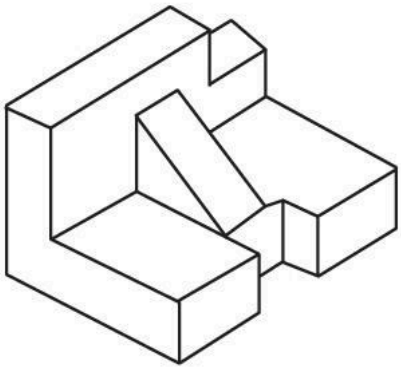


(4)

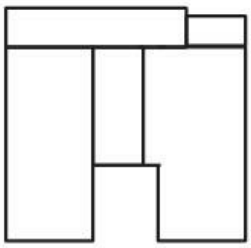


80. 4 marks

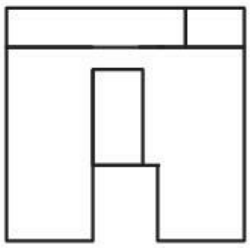
Question figure shows 3D view of an object. Identify the **correct** top view/plan of a given object from answer figures.



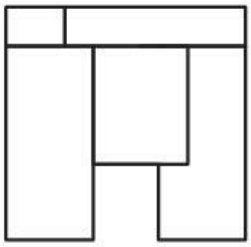
(1)



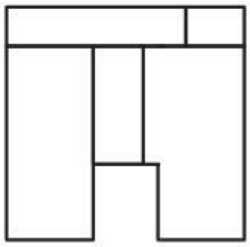
(2)



(3)



(4)



Drawing

81. 50 marks

Draw a proportionate sketch of given reference image. Use black and white rendering techniques of your choice.



82. 50 marks

Attempt **any one** of the following questions.

(A) Draw a scene of holi festival. Use colours of your choice to render the drawing.

OR

(B) Using triangles and rectangles of your choice, create a composition which may reflect 'RHYTHM'. Colour the composition using 'Cool Colour' scheme.