Biology Cell Cycle & Cell Division



1.	-	e fibers att psomes du		to kinetoch	ores of (2024)		Choose the corr options given belo	rect answer from the	è
	(a) Met	aphase	(b)	Anaphase			(a) A-I, B-II, C-IV,		
	(c) Telo	phase	(d)	Prophase			(b) A-II, B-IV, C-1		
2.	Given b	pelow are t	wo st	atements :	(2024)		(c) A-IV, B-III, C-I		
	Staten	nents I : (Chror	nosomes be	ecomes		(d) A-IV, B-II, C-II		
	0	lly visibl leptotene :			roscope	4.		stages of cell division : (2024)	
	Staten diplote:			he beginn recognize	0		A. Gap 2 phase	(2027)	
	-	U		nemal comp	e e		B. Cytokinesis		
	In the	light of	the a	above state	ements,		C. Synthesis phas	se	
	choose	the corr	rect a	answer fro	om the		D. Karyokinesis		
	options	s given belo	ow:				E. Gap 1 phase		
	(a) Botl	h statemen	nt I ar	nd Statemer	nt II	_	Choose the correct	ct sequence of stages	
	are	false					from the options g	given below :	
	(b) Stat	tement I is	true	but stateme	ent II is		(a) E-B-D-A-C	(b) B-D-E-A-C	
	fals	e.					(c) E-C-A-D-B	(d) C-E-D-A-B	
	(c) Stat	ement I is	false	but stateme	ent II is	5.	The process	of appearance o	f
	(c) Stat true		false	but stateme	ent II is	5.	recombination no	odules occurs at which	
	true	2		but statemen		5.	1	odules occurs at which hase I in meiosis?	1
	true	e h statemer		nd statemen	nt II are	5.	recombination no sub stage of propl	odules occurs at which hase I in meiosis? (2023)	1
3.	true (d) Both true	e h statemer	nt I ar	nd statemen		5.	recombination no	odules occurs at which hase I in meiosis?	1
3.	true (d) Both true Match	e h statemer e	nt I ar	nd statemen	nt II are	5.	recombination no sub stage of propi (a) Pachytene (c) Diakinesis Which of the follo	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis	1
3.	true (d) Both true Match I (Sub I	e h statemen c List I with Jist I Phases of	nt I ar	nd statemen I : List II (Specific	nt II are (2024)		recombination no sub stage of propi (a) Pachytene (c) Diakinesis Which of the follo involves division of	odules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023)	1
3.	true (d) Both true Match I (Sub I Proj	h statemen List I with List I Phases of phase I)	nt I ar. List I	I : List II (Specific character	nt II are (2024) : s)		recombination no sub stage of propi (a) Pachytene (c) Diakinesis Which of the follo involves division of (a) Telophase	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023) (b) Metaphase I	1
3.	true (d) Both true Match I (Sub I Proj	e h statemen c List I with Jist I Phases of	nt I ar	I : List II (Specific character: Synaptone complex	nt II are (2024) : s)		recombination no sub stage of propil (a) Pachytene (c) Diakinesis Which of the follo involves division of (a) Telophase (c) Metaphase II The process	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023) (b) Metaphase I (d) Anaphase II of appearance o	n S)
3.	true (d) Both true Match (Sub I Proj A. D	h statemen List I with List I Phases of phase I)	nt I ar. List I	I : List II (Specific characters Synaptone	nt II are (2024) : s) emal	6.	recombination no sub stage of propil (a) Pachytene (c) Diakinesis Which of the follo involves division of (a) Telophase (c) Metaphase II The process	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023) (b) Metaphase I (d) Anaphase II of appearance o odules occurs at which	n S)
3.	true (d) Both true Match (Sub I Proj A. D	h statemen List I with List I Phases of phase I) iakinesis	nt I an List I I.	I : List II (Specific characters Synaptone complex formation	at II are (2024) (s) emal an of ation	6.	recombination no sub stage of propil (a) Pachytene (c) Diakinesis Which of the follo involves division of (a) Telophase (c) Metaphase II The process recombination no sub stage of propi	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023) (b) Metaphase I (d) Anaphase II of appearance o odules occurs at which hase I in meiosis? (2023)	n s) f
3.	true (d) Both true Match (Sub I Proj A. D B. Pa	h statemen List I with List I Phases of phase I) iakinesis	nt I an List I I.	I : List II (Specific characters Synaptone complex formation Completio terminalis of chiasma Chromoso	at II are (2024) (s) emal on of ation ata omes	6.	recombination no sub stage of propil (a) Pachytene (c) Diakinesis Which of the follo involves division of (a) Telophase (c) Metaphase II The process recombination no	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023) (b) Metaphase I (d) Anaphase II of appearance o odules occurs at which hase I in meiosis?	n s) f
3.	true (d) Both true Match (Sub I Proj A. D B. Pa	e h statemen List I with List I Phases of phase I) iakinesis achytene	t I an List I I. II.	I : List II (Specific characters Synaptone complex formation Completio terminalis of chiasma Chromoso look like	at II are (2024) (s) emal on of ation ata omes	6.	recombination no sub stage of propil (a) Pachytene (c) Diakinesis Which of the follo involves division of (a) Telophase (c) Metaphase II The process recombination no sub stage of propil (a) Diakinesis (c) Pachytene Among eukaryote	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023) (b) Metaphase I (d) Anaphase II of appearance o odules occurs at which hase I in meiosis? (2023) (b) Zygotene (d) Diplotene es, replication of DNA	n S) f n)
3.	true (d) Both true Match (Sub I Proj A. D B. Pa C. Zy	e h statemen List I with List I Phases of phase I) iakinesis achytene ygotene	t I an List I I. II. III.	I : List II (Specific characters Synaptone complex formation Completio terminalis of chiasma Chromoso look like threads	at II are (2024) (s) emal an of ata omes thin	6 . 7.	recombination no sub stage of propion (a) Pachytene (c) Diakinesis Which of the follo involves division of (a) Telophase (c) Metaphase II The process recombination no sub stage of propion (a) Diakinesis (c) Pachytene Among eukaryote takes place in:	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023) (b) Metaphase I (d) Anaphase II of appearance o odules occurs at which hase I in meiosis? (2023) (b) Zygotene (d) Diplotene es, replication of DNA (2023)	s) fn
3.	true (d) Both true Match (Sub I Proj A. D B. Pa C. Zy	e h statemen List I with List I Phases of phase I) iakinesis achytene	t I an List I I. II.	I : List II (Specific characters Synaptone complex formation Completio terminalis of chiasma Chromoso look like	at II are (2024) (2024) (s) emal an of ata omes thin ce of	6 . 7.	recombination no sub stage of propil (a) Pachytene (c) Diakinesis Which of the follo involves division of (a) Telophase (c) Metaphase II The process recombination no sub stage of propil (a) Diakinesis (c) Pachytene Among eukaryote	dules occurs at which hase I in meiosis? (2023) (b) Diplotene (d) Zygotene owing stages of meiosis of centromere? (2023) (b) Metaphase I (d) Anaphase II of appearance o odules occurs at which hase I in meiosis? (2023) (b) Zygotene (d) Diplotene es, replication of DNA	n S) f n)

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~	1. F	I	
9.	Match List-l with List-II:		(c) Statement I is incorrect but
	List – I LIst – II		Statement II is correct
	A M Phase (i) Proteins are synthesized		(d) Both Statement and Statement II are
			Correct
		12.	Doubling of the number of chromosomes
	C Quiescent (iii) Interval stage between mitosis		can be achieved by disrupting mitotic cell
	and initiation of		division soon after: (2023)
	DNA replication		(a) Anaphase (b) Telophase
	D G ₁ Phase (iv) Equational		(c) Prophase (d) Metaphase
	division	13.	During which stages of mitosis and
	Choose the correct answer from the		meiosis, respectively does the
	options given below : (2023)		centromere of each chromosome split?
	(a) A-II, B-IV, C-I, D-III	1.1	(2023)
	(b) A-III, B-II, C-IV, D-I		(a) Metaphase, Metaphase II
	(c) A-IV, B-II, C-I, D-III		(b) Prophase, Telophase
	(d) A-IV, B-I, C-II, D-III		(c) Telophase, Anaphase
10.	Select the correct statements.		(d) Anaphase, Anaphase II
	A. Tetrad formation is seen during	14.	Which stage of meiosis can last for
	Leptotene.		months or years in the oocytes of some
	B. During Anaphase, the centromeres		vertebrates? (2022)
	split and chromatids separate.		(a) Diakinesis (b) Leptotene
	C. Terminalization takes place during		(c) Pachytene (d) Diplotene
	Pachytene.	15.	Identify the correct sequence of events
	D. Nucleolus, Golgi com <mark>plex and ER are</mark>		during Prophase I of meiosis:
	reformed during Telophase.		(A) Synapsis of homologous
	E. Crossing over takes place between		chromosomes
	sister chromatids of homologous		(B) Chromosomes become gradually
	chromosome.		Visible under microscope
	Choose the correct answer from the		(C) Crossing over between non-sister
	options given below: (2023)		chromatids of homologous
	(a) B and D only	1	chromosomes
	(b) A. C and E only		(D) Terminalisation of chiasmata
	(c) B and E only		(E) Dissolution of synaptonemal complex
	(d) A and C only		Choose the correct answer from the
11.	Given below are two statements:	12.	options given below: (2022)
	Statement I: During GO phase of cell		(a) (A), (C), (D), (E), (B)
	cycle, the cell is metabolically inactive.		(b) (A), (B), (C), (D), (E)
	Statement II: The centrosome		(c) (B), (C), (D), (E), (A)
	undergoes duplication during S phase of		(d) (B), (A), (C), (E), (D)
	interphase.	16.	Bivalent or Tetrad formation is a
	In the light of the above statements,		characteristic feature observed during
	choose the most appropriate answer		(2022)
	from the options given below: (2023)		(a) Chiasmata in zygotene stage
	(a) Both Statement i and Statement II are		(b) Synaptonemal complex in zygotene
	incorrect		stage
	(b) Statement I is correct but Statement		(c) Chiasmata in Diplotene stage
	Il is incorrect,		(d) Synaptonemal complex in Pachytene
	, 		Stage
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17.	folla (a) (b) (c) (d) Wh dur (a) (b) (c)	owing statemen Chromosomes I cell Complete disint envelope takes Chromosomes a Metaphase chro up of four siste together by cen ich one of the f ring mitotic cell Spindle fibres a kinetochores of Movement of ce opposite poles Pairing of homo	tts is ie at place are hi omos r chr trom follow divis ttach chro entrio	e ghly condensed omes are made omatids held ere ving never occurs ion (2022) to omosomes les towards	21.	optic (a) (4 (b) (4 (c) (4 (d) (4 Rega state (a) T M (b) I M (c) P an (d) F e Sele	ose the cor ons given bel A)-(iii), (B)-(i), A)-(i), (B)-(ii), A)-(i), (B)-(ii), A)-(i), (B)-(ii), A)-(i), (B)-(ii), arding Meio ements is incomplete there are two Meiosis-I and DNA replication Meiosis-II Pairing of hom and recombination Four haploid end of Meiosis ct the incomplete	ow: (C)-((C)-(i (C)-(i (C)-(i osis, correc stag II on oc nolog ation cells s-II prrec	(iv), (D)-(ii) (ii), (D)-(iv) iv), (D)-(i) iii), (D)-(iv) which or et? (es in Meiosis ccurs in S ph ous chromos occurs in Me are formed a t statement	2022) f the 2022) ase of comes ciosis-1 t the with
	(d)	Coiling and con	idens	ation of the		refei	rence to mito	sis:	(2	2022)
	• •	chromatids			1		ll the chromo		•	•
19.	The		of	recombination	1		at metaphase			1
				as chromosomes			Spindle fibres		ch to centror	nere
		ring meiosis cha	-		- 1		of chromoson			
		Synaptonemal (-		Chromosomes		ondense at	
	• •	Bivalent	comp	ICA			elophase	succ	ondense at	
	• •	Sites at which o	rossi	ng over occurs			Splitting of ce	ntror	mere occurs	at
	• •	Terminalization		ing over occurs	-		naphase	11(10)		aı
20.	• •	tch List-l with I			23.		ch of the foll	ourin	a stages of m	noingia
20.	Ina	List – I		LIst – II	23.		lves division			
							Ietaphase-II) Anaphase-1	•
	Α		(i)	Centromere			elophase-II		, <u> </u>	
		chromosome		situated close	24.		ch List-1 witl		l) Metaphase	
				to the end forming one	24.	Mate	List - I		•	2021)
				extremely				(1)	List -II	
				short and one		Α.	S phase	(i)	Proteins	are
				very long arms		-		<i></i>	synthesized	
	В	Acrocentric	(ii)	Centromere at		B.	G_2 phase	(ii)	Inactive pha	
		chromosome		the terminal		C.	Quiescent	(iii)	Interval bet	
		0.1	<i></i>	end			Stage		mitosis and	
	С	Submetacen	(iii)	Centromere in the middle					initiation of	DNA
		tric		forming two					replication	
				equal arms of		D.	G_1 phase	(iv)	DNA replica	ation
				chromosomes		Cho	ose the cor	rect	answer from	m the
							ons given bel		_	
	D	Telocentric	(iv)	Centromere		-	A-(iv) B-(ii) C-		D-(i)	
		chromosome		slightly away			A-(iv) B-(i) C-(.,	
				from the middle forming one			-(ii) B-(iv) C-			
				shorter arm and			A-(iii) B-(ii) C-	• •	. ,	
				one longer arm						

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- 25. The fruit fly has 8 chromosomes (2n) in each cell. During interphase of Mitosis if the number of chromosomes at G₁ phase is 8, what would be the number of chromosomes after S phase? (2021)
 (a) 16 (b) 4
 - (c) 32 (d) 8
- 26. Which stage of meiotic prophase shows terminalization of chiasmata as its distinctive feature? (2021)
 (a) Zygotene (b) Diakinesis
 (c) Pachytene (d) Leptotene
- 27. The centriole undergoes duplication during: (2021)
 (a) Prophase (b) Metaphase
 - (c) G_2 phase (d) S-phase
- 28. Match the following with respect to meiosis: (2020)

C	Column -I		Column -II
1.	Zygotene	(i)	Terminalization
2.	Pachytene	(ii)	Chiasmata
3.	Diplotene	(iii)	Crossing over
4.	Diakinesis	(iv)	Synapsis

Select the correct option from the following:

(1) (2) (3) (4)

- (a) (iv) (iii) (ii) (i)
- (b) (i) (ii) (iv) (iii)
- (c) (ii) (iv) (iii) (i)
- (d) (iii) (iv) (i) (ii)
- **29.** Some dividing cells exit the cell cycle and enter vegetative inactive stage. This is called quiescent stage (G_0) . This process occurs at the end of: (2020) (a) G_1 phase
 - (b) S phase
 - (c) G_2 phase
 - (d) M phase
- 30. In a mitotic cycle, the correct sequence of phases is (2020 Covid Re-NEET)
 (a) G₁, S, G₂, M
 (b) M, G₁, G₂, S
 - (c) G_1, G_2, S, M
 - (d) S, G_1 , G_2 , M

- 31. Attachment of spindle fibers to kinetochores of chromosomes becomes evident in: (2020 Covid Re-NEET) (a) Telophase (b) Prophase (c) Metaphase (d) Anaphase
- **32.** Match the following events that occur in their respective phases of cell cycle and select the correct option:

(2020 Covid Re-NEET)

1.	<i>G</i> ₁ phase	(i)	Cell grows and organelle duplication
2.	S phase	(ii)	DNA replication and chromosome duplication
3.	G ₂ phase	(iii)	Cytoplasmic growth
4.	Metaphase in M-phase	(iv)	Alignment of chromosomes

- (1) (2) (3) (4)
- (a) (iii) (iv) (i) (ii)
- (b) (iv) (i) (ii) (iii)
- (c) (i) (ii) (iii) (iv)
- (d) (ii) (iii) (iv) (i)
- 33. Identify the correct statement with regard to G₁ phase (Gap 1) of interphase.(2020)
 - (a) Reorganisation of all cell components takes place.
 - (b) Cell is metabolically active, grows but does not replicate its DNA.
 - (c) Nuclear division takes place.
 - (d) DNA synthesis or replication takes place.
- **34.** Dissolution of the synaptonemal complex occurs during: (2020)
 - (a) Zygotene (b) Diplotene
 - (c) Leptotene (d) Pachytene
- **35.** During Meiosis-I, in which stage synapsis takes place?

(2020 Covid Re-NEET)

(a) Zygotene(b) Diplotene(c) Leptotene(d) Pachytene

36. 37.	The correct sequence of phases of cell cycle is (2019) (a) $M \rightarrow G1 \rightarrow G2 \rightarrow S$ (b) $G1 \rightarrow G2 \rightarrow S \rightarrow M$ (c) $S \rightarrow G1 \rightarrow G2 \rightarrow M$ (d) $G1 \rightarrow S \rightarrow G2 \rightarrow M$ Cell in G_0 phase (2019) (a) Exit the cell cycle (b) Enter the cell cycle (c) Suspend the cell cycle (d) Terminate the cell cycle	42. 43. 44.	chro (a) A (c) P Duri place (a) G (c) S White char some	mosomes are naphase-II rophase-II ng cell growth e in: 2 phase phase ch of the racteristic feat atic cells?	separ (b) (d) a, DN (b) (d) follov	Prophase-I Anaphase-I A synthesis takes (2016 - II) M phase G ₁ phase
38. 39.	The stage during which separation of the paired homologous chromosomes begins is (2018) (a) Pachytene (b) Diplotene (c) Diakinesis (d) Zygotene Which of the following statements is correct with respect to cell cycle? (2017) (a) DNA content of cell remains constant	45.	 (b) E (c) C (d) S Mato to Colu 	their charac mn–II and se	of me terist lect t	iosis in Column–I
	during entire cell cycle (b) A cell in G_1 phase has double the		A.	Column I Pachytene	(i)	Column II Pairing of
	 amount of DNA than a cell in G₂ phase (c) Each chromosome has two chromatids in G₁ phase 					homologous chromosomes
	(d) Nerve cells in adult human are in G_0 State	<	В.	Metaphase- I	(ii)	Terminalisation of chiasmata
40.	Which of the following options gives the correct sequence of events during mitosis? (2017)		C.	Diakinesis	(iii)	Crossing over takes place
	 mitosis? (2017) (a) Condensation → Nuclear membrane disassembly → Crossing over → Segregation → Telophase (b) Condensation → Nuclear membrane disassembly → Arrangement at 		D. Code	Zygotene	(iv)	Chromosomes align at equatorial plate
	equator \rightarrow Centromere division \rightarrow Segregation \rightarrow Telophase	ð.	(a) A	(ii) B-(iv) C-(ii (iv) B-(iii) C-(i		
41.	 (c) Condensation → Crossing over → Nuclear membrane disassembly → Segregation → Telophase (d) Condensation → Arrangement at equator → Centromere division → Segregation → Telophase DNA replication in bacteria occurs: (2017) 	46.	 (c) A (d) A In m (a) P (b) L (c) Z 	-(iii) B-(iv) C-(i -(i) B-(iv) C-(ii)	i) D-() D-(ii	i)
	 (a) During S-phase (b) Within nucleolus (c) Prior to fission (d) Just before transcription 		_			
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2019) of the begins 2018)	43. 44.	Duri place (a) G (c) S Whie char soma (a) S (b) D	e in: ₂ phase phase ch of the	, DNA (b) I (d) (follow ure d of nu	A synthesis takes (2016 - II) M phase G ₁ phase ving is not a luring mitosis in (2016 - I) cleolus
1		• •	ynapsis	с ·	· · o 1 · ·
nts is	45.		their charac		osis in Column–I ic features in
2017)					ne correct option
nstant					elow: (2016 - II)
1	1		Column I		Column II
le the		Α.	Pachytene	(i)	Pairing of
phase two					homologous
tho					chromosomes
e in G ₀	1	В.	Metaphase- I	(ii)	Terminalisation of chiasmata
es the		C.	Diakinesis	(iii)	Crossing over
during 2017)		С.			takes place
rane		D.	Zygotene	(iv)	Chromosomes
*		Υ			align at
					equatorial plate
orane	1	Code			
	-		-s. (ii) B-(iv) C-(ii	i) D-(i)
			-(iv) B-(iii) C-(i		
\rightarrow		(c) A	-(iii) B-(iv) C-(i	i) D-(i)
$y \rightarrow$		• •	-(i) B-(iv) C-(ii)	•	
. 4	46.	In m	ieiosis, crossin	g ove	r is initiated at: (2016 - I)
at →		(a) P	achytene		(2010 - 1)
·		. ,	eptotene		
:			ygotene		
2017)		(d) E	Diplotene		

 A. Synapsis aligns the homologous chromosomes B. Synthesis of (i) Zygotene chromosomes B. Synthesis of (ii) Zygotene chromosomes C. Action of (iii) G₂-phase cherch cell (c) G₁ and S (d) Only G₂ S. In 'S phase of the cell cycle: (2014) (a) Amount of DNA is reduced to half in each cell (b) Amount of DNA is reduced to half in each cell (c) Amount of DNA remains same in each cell (c) Amount of DNA remains same in each cell (c) Amount of DNA remains same in each cell (c) Chromosome number is increased D. Centromeres (iv) Anaphase-I do not separate but chromatids move towards opposite poles (c) (c) A-(ii) B-(ii) C-(iv) D-(iv) (c) A-(ii) B-(ii) C-(iv) D-(v) (c) A-(ii) B-(ii) C-(iv) D-(v) (c) A-(ii) B-(ii) C-(v) D-(v) (c) A-	47.	Sele	ct the correct option Column I		(2015) Column II	50.			hase(s) of cell cycle, h a cell remains at 4C		
 B. Synthesis of (ii) Zygotene B. Synthesis of (iii) Zygotene RNA and protein C. Action of (iii) G₂-phase C. Action of (iii) G₂-phase D. Centromeres (iv) Anaphase-I do not separate but chromatids move towards opposite poles in generate but chromatids move towards opposite poles in generate but chromatids (a) Pachytene (a) A-(i) B-(ii) C-(iii) D-(iv) (b) A-(ii) B-(ii) C-(iii) D-(iv) (c) A-(ii) B-(ii) C-(iv) D-(v) (c) A-(ii) B-(ii) C-(iv) D-(v) (c) A-(ii) B-(ii) C-(iv) D-(v) (d) A-(ii) B-(ii) C-(v) D-(v) (e) A-(ii) B-(ii) C-(v) D-(v) (f) A-(ii) B-(ii) C-(v) D-(v) (g) Twice the number of chromosomes and twice the amount of DNA (h) Four times the number of chromosomes and twice the amount of DNA (c) Twice the number of chromosomes and twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes and twice the amount of DNA (d) Same number of chromosomes and twice the amount of DNA (e) Late Chromosomes moving plate, Golgi complex reforms. (c) Late Chromosomes moving plate, Golgi complex reformed (d) Cytokinesis Cell plate formed (d) Cytokinesis Cell plate formed (d) Cytokinesis Cell plate formed (e) Late Chromosomes in the plate formed (f) Chromosomes in the plate formed (2013) (a) Axonem (b) Equatorial plate 		А.	Synapsis aligns the homologous		Anaphase-	51.	2C? (a) G (c) G	$_2$ and M $_1$ and S	(b) G_0 and G_1 (d) Only G_2		
 C. Action of (iii) G₂-phase enzyme recombinase D. Centromeres (iv) Anaphase-I do not separate but chromatids move towards opposite poles (v) Pachytene (d) Diplotene (a) A-(i) B-(ii) C-(iii) D-(iv) (c) (c) A-(ii) B-(ii) C-(iv) D-(v) (c) A-(ii) B-(ii) C-(iv) D-(v) (c) A-(ii) B-(ii) C-(v) D-(v) (c) (2015 Re) (a) Twice the number of chromosomes and four times the amount of DNA (b) Four times the number of chromosomes and twice the amount of DNA (c) Twice the number of chromosomes and twice the amount of DNA (d) Same number of chromosomes and twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes and twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes and twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the following events of meiosis in correct sequence: (2015 Re) A. Crossing over B. Synapsis C. Terminalisation of chiasmata D. Disappearance of nucleous (a) (B) (A) (C) (D) (b) (A) (B) (C) (D) (c) (d) (d		В.	RNA and	(ii)	Zygotene		(a) A e (b) A	mount of DNA ach cell mount of DNA	A is reduced to half in A doubles in each cell		
 D. Centromeres (iv) Anaphase-1 do not separate but chromatids move towards opposite poles (v) Pachytene (a) A-(i) B-(ii) C-(iii) D-(iv) (b) A-(ii) B-(iii) C-(iv) D-(v) (c) A-(ii) B-(iii) C-(v) D-(v) (d) A-(ii) B-(iii) C-(v) D-(v) (e) A-(iii) B-(iii) C-(v) D-(v) (f) A-(iii) B-(iii) C-(v) D-(v) (g) A-(iii) B-(iii) C-(v) D-(v) (g) A-(iii) B-(iii) C-(v) D-(v) (g) Twice the number of chromosomes and four times the amount of DNA (b) Four times the number of chromosomes and twice the amount of DNA (c) Twice the number of chromosomes and twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (e) Twice the number of chromosomes but twice the amount of DNA (f) Telophase (g) Telophase (h) Telophase (h) Telophase (h) Telophase (h) Complex reforms. (h) Telophase (h) Telophase<th></th><th>C.</th><th>enzyme</th><th>(iii)</th><th>G₂-phase</th><th>50</th><th>ce (d) C</th><th>ell Phromosome n</th><th>umber is increased</th>		C.	enzyme	(iii)	G ₂ -phase	50	ce (d) C	ell Phromosome n	umber is increased		
 (i) (i) (i) (i) (ii) (ii) (ii) (ii) (i		D.	do not separate but chromatids move towards	(iv)	Anaphase-I		whic (a) D (c) Z A sta	h stage of me viakinesis ygotene age in cell div	iosis? (2014) (b) Pachytene (d) Diplotene vision is shown in the		
 (a) A-(i) B-(ii) C-(iii) D-(iv) (b) A-(ii) B-(ii) C-(iv) D-(v) (c) A-(ii) B-(ii) C-(v) D-(iv) (d) A-(ii) B-(ii) C-(v) D-(iv) (e) A somatic cell that has just completed the S phase of its cell cycle, as compared to gamete of the same species, has: (2015 Re) (a) Telophase (a) Telophase Endoplasmic reticulum and nucleolus no reformed yet. (a) Telophase (b) Telophase Nuclear envelop reforms, Golg complex reforms. (c) Twice the number of chromosomes and twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (e) Trelophase (c) Late (c) Late (d) Cytokinesis (e) Disappearance of nucleolus (a) (B), (A), (C), (D) (b) (A), (B), (C), (D) (f) Telophase 				(v)	Pachytene				-		
 (a) Twice the number of chromosomes and four times the amount of DNA (b) Four times the number of chromosomes and twice the amount of DNA (c) Twice the number of chromosomes and twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (e) Telophase (f) Telophase (g) Telophase (h) Telophase<th>48.</th><th> (b) A (c) A (d) A A so the S </th><th>-(ii) B-(iii) C-(iv) D -(ii) B-(i) C-(iii) D-(-(ii) B-(iii) C-(v) D- matic cell that h S phase of its cell</th><th>(iv) (iv) (iv) (iv) (ias ju cycle)</th><th>, as compared</th><th></th><th></th><th></th><th></th>	48.	 (b) A (c) A (d) A A so the S 	-(ii) B-(iii) C-(iv) D -(ii) B-(i) C-(iii) D-(-(ii) B-(iii) C-(v) D- matic cell that h S phase of its cell	(iv) (iv) (iv) (iv) (ias ju cycle)	, as compared						
 (c) Twice the number of chromosomes and twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (d) Same number of chromosomes but twice the amount of DNA (e) Late Chromosomes move away from equatorial plate, Golgi complex reforms. (c) Late Chromosomes move away from equatorial plate, Golgi complex not present. (d) Cytokinesis Cell plate formed (d) Cytokinesis Cell plate formed (e) B, (A), (C), (D) (f) B, (A), (C), (D) (g) (B), (C), (D) (h) (B), (A), (B), (C), (D) (h) (C) (D) 		(a) T a (b) F	wice the number nd four times the our times the nur	of chi amo nber	(2015 Re) romosomes unt of DNA of			P	reticulum and nucleolus not reformed yet.		
 (d) Same number of chromosomes but twice the amount of DNA 49. Arrange the following events of meiosis in correct sequence: (2015 Re) A. Crossing over B. Synapsis C. Terminalisation of chiasmata D. Disappearance of nucleolus (a) (B), (A), (C), (D) (b) (A), (B), (C), (D) (c) (B) (C) (D) (d) Cytokinesis (e) (C) (D) (D) (A) (f) (C) (D) (g) (B) (C) (D) (h) (C) (D)<th></th><th>о (с) Т</th><th>f DNA wice the number o</th><th>of chr</th><th>romosomes</th><th></th><th></th><th></th><th>reforms, Golgi</th>		о (с) Т	f DNA wice the number o	of chr	romosomes				reforms, Golgi		
 A. Crossing over B. Synapsis C. Terminalisation of chiasmata D. Disappearance of nucleolus (a) (B), (A), (C), (D) (b) (A), (B), (C), (D) (c) (B) (c) (D) (d) Cytokinesis Cell plate formed 54. 54. 54. 54. (d) Cytokinesis Cell plate formed to synapsed homologous chromosomes is called: (a) Axoneme (b) Equatorial plate 	49.	(d) S t Arra	ame number of ch wice the amount on nge the following o	nromo of DN	osomes but A s of meiosis in		(c)		Chromosomes move away from equatorial plate, Golgi complex not present.		
$(a) (B) (C) (D) (A) (d) (B) (A) (D) (C) = \frac{1}{2} $		A. C: B. S <u>(</u> C. Te D. D	rossing over ynapsis erminalisation of o isappearance of n	ucleo	mata blus	54.	The syna calle	complex for psed homolog d:	rmed by a pair of gous chromosomes is (2013)		
		(c) (E	3), (C), (D), (A) (d) (B),	(A), (D), (C)		• •				