

**Savitribai Phule Pune University - Competitive Examinations Centre**  
**UGC - UPSC Coaching Programme Entrance Examination 2018**  
**ANSWER KEY - SET - A**

Q.No.	Ans	Q.No.	Ans	Q.No.	Ans	Q.No.	Ans
1	d	26	b	51	b	76	a
2	a	27	c	52	a	77	c
3	d	28	a	53	b	78	d
4	b	29	b	54	b	79	b
5	d	30	a	55	a	80	b
6	b	31	b	56	b	81	b
7	a	32	c	57	c	82	a
8	b	33	b	58	d	83	c
9	c	34	d	59	a	84	b
10	b	35	c	60	a	85	c
11	d	36	d	61	c	86	c
12	d	37	a	62	a	87	b
13	b	38	a	63	b	88	c
14	c	39	b	64	c	89	c
15	b	40	d	65	d	90	c
16	c	41	d	66	d	91	b
17	d	42	a	67	c	92	b
18	c	43	c	68	d	93	d
19	c	44	d	69	b	94	c
20	d	45	a	70	c	95	c
21	b	46	a	71	b	96	b
22	c	47	a	72	a	97	d
23	c	48	d	73	c	98	a
24	a	49	b	74	d	99	b
25	a	50	b	75	c	100	d

## EXPLANATION - SET - A

1) **Ans.: d**

**Exp.:** Atmiya Sabha (1814), Gift to Monotheist (1809), Vedanta College (1825), Precepts of Jesus (1820).

2) **Ans.: a**

**Exp.:** Curzon followed a policy of withdrawal and concentration. Durand Line Agreement was signed in 1893 between Afgan Ruler Abdur Rehman Khan and Sir H. M. Durand. Curzon brought NWFP directly under Indian Government from provincial government of Punjab.

3) **Ans.: d**

**Exp.:** All of these were their demands.

4) **Ans.: b**

**Exp.:** It was held under the presidency of DadaBhai Naoroji and first time demanded Swarajya.

5) **Ans.: d**

**Exp.:** 1. Dyarchy was introduced at provinces and not at centre level.  
2. Bicameral legislature was introduced at centre level.  
3. Women could not become member of council of states.  
4. Central Legislative Assembly to have tenure of 3 years and not 5 years.

6) **Ans.: b**

**Exp.:** ■ In Champaran (1917) Gandhiji practiced Civil Disobedience by refusing to obey the orders of local administration to leave Champaran.  
■ In Ahmedabad, he practiced Hunger Strike to pressurise mill owners to give wage hike to workers.  
■ In Kheda, he practiced Non Co-Operation by asking villagers and farmers not to pay revenues.  
■ Rowlett Act was his first mass struggle in India.

7) **Ans.: a**

**Exp.:** Paika rebellion occurred in 1817 hence 40 years prior to 1857 uprising.

8) **Ans.: b**

**Exp.:** Vernacular Press Act imposed restriction only on Indian Language Papers and not on papers published in English. Hence Amrit Bazar Patrika changed its language into English to escape its strict restrictions.

9) **Ans.: c**

**Exp.:** It recommended Primary School Education to be in Vernacular Medium only, while High School education to be in Anglo-Vernacular language.

10) **Ans.: b**

**Exp.:** 1. Cabinet Mission offered full autonomy and residual power to provinces and not to central government.  
2. Constituent Assembly to have indirectly elected members majority. Such members to be elected indirectly from provinces assemblies.

11) **Ans.: d**

**Exp.:** India's rank declined by 10 spots since 2010. Global level too, has seen widening gender gap between 2016-2017 report. It is published by World Economic Forum. It is based on 4 pillars:  
1. Health  
2. Education  
3. Workplace and  
4. Political Representation

12) **Ans.: d**

**Exp.:** All these are related to GST-  
1) Composition Scheme : A simplified GST regime for business with less than ₹ 1.5 crore turnover.

2) Harmonised System of Nomenclature : It's a standardised system of naming goods by organising them in hierarchical manner, into 2 to 8 digit codes.

3) E-way Bill : Electronically generated bill, compulsory before transporting goods worth min. ₹50,000 for interstate and intrastate transport.

4) Compliance Rating : a rating showing the GST compliance behaviour of a supplier.

**13) Ans.: b**

**Exp.:** It will help Indian banks in achieving Basel III norms. It is of around ₹2.1 Lakh Crore Rs. But only ₹18,000 Crore will be provided from union budget while remaining amount will be raised through recapitalisation bonds and other market sources. It is an example of Bail-out by government and not Bail-in.

**14) Ans.: c**

**Exp.:** In last five years (2013-18) the inflation has been declining significantly, hence narrowing the gap between the growth rate of real and nominal GDP. While over last decade, the growth rate of GDP has been fluctuating significantly mainly due to events as global economic recession and demonetisation. Hence, both statements are wrong.

**15) Ans.: b**

**Exp.:** Top 1% in India have 73% of India's income in 2017, while it was around 58% in 2016 report. While at global level its around 82%.

**16) Ans.: c**

**Exp.:** Recapitalisation and Nationalisation will increase the fiscal deficit due to increased expenditure of government while DBT will reduce leakage in subsidy and hence reduce expenditure, whereas disinvestment will increase income of government and help reduce Fiscal Deficit.

**17) Ans.: d**

**Exp.:** Transforming Aspirational District Program involves 3 C: convergence, collaboration and competition. It's not a Central Sector Scheme. Districts are selected by NITI Aayog. They are ranked in five development areas:

- |                      |                        |
|----------------------|------------------------|
| 1. Health            | 2. Education           |
| 3. Agriculture       | 4. Financial inclusion |
| 5. Skill Development |                        |

**18) Ans.: c**

**Exp.:** Four Reef habitats of India:

1. Kuchch
2. Mannar Gulf
3. Andaman & Nicobar Island
4. Lakshadweep

Kuchch and Mannar Gulf have fringing reef. Andaman & Nicobar Island have both fringing and Barrier reef while Lakshadweep has Atoll.

**19) Ans.: c**

**Exp.:** It's related to Sustainable Development Goals. India submitted its review report in 2017 by NITI Aayog Vice-chairman Arvind Panagariya.

**20) Ans.: d**

**Exp.:** Pioneer species have low efficiency of energy use and have simple food chains.

**21) Ans.: b**

**Exp.:** Kisanganj School (NIhalchand), Mewar (Sahibdin), Bikaner (Patsahi), Amber (Dhundar).

**22) Ans.: c**

**Exp.:** Pandit Bhimsen Joshi belonged to Kirana Gharana. Rest of the statement are correct.

**23) Ans.: c**

**Exp.:** It's from Kerala. It shows battle between Goddess Kali and demon Darika. It is performed in February to May.

24) **Ans.: a**

**Exp.:** RCEP is 16 membered grouping. Has 10 membered ASEAN and 6 countries having FTA with ASEAN. It also includes Japan and South Korea. Apart from goods and services it also includes investment, IPRs.

25) **Ans.: a**

**Exp.:** It's implemented by Minister of Women and Child Development. It has Swastha Bharat Preraks for achieving targets. It covers only 315 districts, while remaining districts will be covered in next two phases.

26) **Ans.: b**

**Exp.:** Foreign investment forms part of balance of payment and not budget.

27) **Ans.: c**

**Exp.:** President can't return money bill for reconsideration.

28) **Ans.: a**

**Exp.:** The 14th Finance Commission has given (10% wt. to 2011 census and 17.5% to 1971 census) Rest of the statements are correct.

29) **Ans.: b**

**Exp.:** He defeated Southern Kingdoms but did not annex them. Rest of the statements are correct.

30) **Ans.: a**

**Exp.:** All are correct.

31) **Ans.: b**

**Exp.:** It's based on 8 factors. Denmark has topmost rank while Norway was II<sup>nd</sup> ranked.

32) **Ans.: c**

**Exp.:** NSG membership will not lead to automatically becoming member of CTBT. Rests of two statements are correct.

33) **Ans.: b**

**Exp.:** It proposed fiscal Deficit target to be around 2.5% and Debt to be around 40% by 2022-23 for central government.

34) **Ans.: d**

**Exp.:** It allowed export of all varieties of edible oil (except mustard oil) in bulk, to promote domestic production. Mustard oil can be exported in max. 5 liters pack.

35) **Ans.: c**

**Exp.:** All are correct statements.

36) **Ans.: d**

**Exp.:** All these 3 parameters are considered while declaring famine.

37) **Ans.: a**

**Exp.:** It is located at West Bank and not Gaza Strip.

38) **Ans.: a**

**Exp.:** It provides wheat at ₹2/kg while Rice at ₹3/kg.

39) **Ans.: b**

**Exp.:** Channapatna toys belong to Karnataka and Kasuti embroidery belong to Karnataka.

40) **Ans.: d**

**Exp.:** It was set up in 1958.

41) **Ans.: d**

**Exp.:** All are correct statements.

42) **Ans.: a**

**Exp.:** It was based on "Atoms for Peace" address of USA President Eisenhower and not Truman.

43) **Ans.: c**

**Exp.:** There were 776 MPs in collegiums, while collegiums includes only the elected MPs and MLAs (State Assemblies) and not nominated members. Other two statement are correct.

44) **Ans.: d**

**Exp.:** All these towns are in Syria.

45) **Ans.: a**

**Exp.:** First two statement are correct, while bank can impose service charges if such notes being exchanged are over ₹5000 a day.

46) **Ans.: a**

**Exp.:** It show value of the opportunity lost due to choosing of other alternative.

47) **Ans.: a**

**Exp.:** Treasury Bills are Short Term Debt Instruments (of 91, 182 and 364 days) while Cash Management Bills are of less than 91 days maturity to meet temporary mismatch in cash flow of Central Government.

48) **Ans.: d**

**Exp.:** The Magnetic field of earth changes its strength, location and polarity over a period of time.

49) **Ans.: b**

**Exp.:** These are Crypto Currencies except Melissa which is a virus infecting computers.

50) **Ans.: b**

**Exp.:** It will replace Holocene that started around 12000 yrs. ago.

51) **Ans.: b**

**Exp.:** It will provide position accuracy of around 20 meters in Primary Service Area. Rest of the statements are correct.

52) **Ans.: a**

**Exp.:** Its Dhara Mustard Hybrid (DMH-11) which is developed in India by Delhi University under Dr. Pental. Other statements are correct.

53) **Ans.: b**

**Exp.:** Maize is not affected by Carbon Fertilisation as it has  $C_4$  Photo Synthesis System.

1<sup>st</sup> also increases water use efficiency by promoting lesser loss of water through transpiration.

54) **Ans.: b**

**Exp.:** As per NASA black holes can be as small as an atom to as massive as a million Sun's Mass. As our Sun's Mass is small hence it can't turn into blackhole.

55) **Ans.: a**

**Exp.:** Theravada is most ancient form of Buddhism. Zen Buddhism emphasises on daily life practices in place of strict study of scriptures. Theravada is dominant in South East Asia.

56) **Ans.: b**

**Exp.:** Its name is changed to Rajada, not for its more protection but to avoid social concern in its killing due to name 'Blue bull'.

57) **Ans.: c**

**Exp.:** Varroa mite and Neonicotinoid Pesticides are believed to be responsible for Colony Collapse Disorder.

58) **Ans.: d**

**Exp.:**  $CO_2$  is long lived with life time of over 100 yrs. while rest have lower life time: Ex. Black Carbon (few days) Ground Level Ozone (weeks), Methane (12 yrs.).

59) **Ans.: a**

**Exp.:** Tropical Dry Deciduous (42%), Moist Deciduous (25%), Thorn (Less than 20%)

60) **Ans.: a**

**Exp.:** • Our common future: Bertland Commission  
• The future we want: Rio + 20 (2012).  
• Transforming our world: SDG (2015)

61) Ans.: c

Exp.: It's more polluting as releases more Carbon and Sulphur. It's based on Petroleum Coke. India has imported it mainly from USA.

62) Ans.: a

Exp.: Basel conventions (Hazardous Waste)  
Rotter dam conventions (Persistent Organic Pollutants)

63) Ans.: b

Exp.: 1. Baralachala connects Keylong and Sarchu.  
2. Lang Lacha La connects Sarchu and Pang.  
Rest are correct.

64) Ans.: c

Exp.: Both are correct.

65) Ans.: d

Exp.: All these are direct taxes.

66) Ans.: d

Exp.: It's a grouping in WTO negotiation to stop fishery subsidies. India is not a member of it. And India opposes it.

67) Ans.: c

Exp.: All these capital cities are located on 77°E longitude.

68) Ans.: d

Exp.: Speed gun uses radio waves. Infrared waves are used for night vision. Ultra violet waves are used for checking forgery of currency notes.

69) Ans.: b

Exp.: Ozone has high oxidation potential. Rest statements are correct.

70) Ans.: c

Exp.: Bicameral nature of state legislature does not form part of federal nature.

71) Ans.: b

Exp.: During E1 Nino Modoki, Cyclone over Bay of Bengal decreases while cyclone over Arabian Sea increases.

Q. 72-73

	<b>Ritesh</b>	<b>Pawan</b>	<b>Dinesh</b>
<b>Sport</b>	Football	Cricket	Hockey
<b>Birthday</b>	Thursday	Monday	Tuesday
	<b>Anil</b>	<b>Dharam</b>	<b>Nitin</b>
<b>Sport</b>	Hockey	Football	Cricket
<b>Birthday</b>	Wednesday	Saturday	Friday

72) Ans.: a

Exp.: Option a is correct.

73) Ans.: c

Exp.: Option c is correct.

74) Ans.: d

Exp.: Option d is correct.

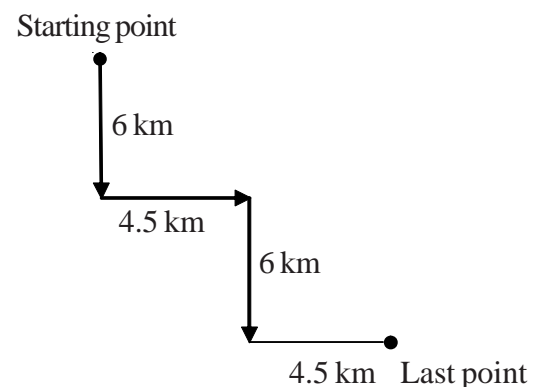
After 5 years - addition of their ages - 142

Addition of their today's age = 142 - 10 = 132

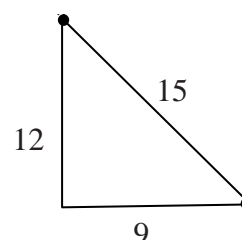
Hence from option d = 46 + 86 = 132

75) Ans.: c

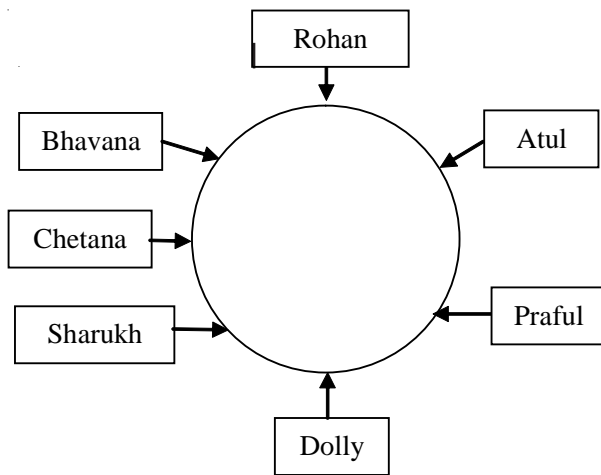
Exp.: Option c is correct.



$$\begin{aligned}
 \text{By Pythagoras formula} &= 12^2 + 9^2 \\
 &= 144 + 81 \\
 &= 225 \\
 &= 15^2
 \end{aligned}$$



## Q. 76-78



76) Ans.: a

Exp.: Option a is correct.

77) Ans.: c

Exp.: Option c is correct.

78) Ans.: d

Exp.: Option d is correct.

79) Ans.: b

Exp.: Speed of boat in still water = 15 km/hr

$$\text{Speed of upstream} = \frac{15}{3} \text{ km/hr} = 5 \text{ km/hr}$$

Let, Speed of current = x

$$5 = 15 - x$$

$$x = 15 - 5$$

$$x = 10 \text{ km/hr}$$

80) Ans.: b

Exp.: Product of left and right number gives you middle number

$$\text{i.e. } 3 \times 1 = 3$$

$$4 \times 2 = 8$$

81) Ans.: b

Exp.: Option of b is correct.

$$\text{Speed of A Train} = \frac{540 \text{ km}}{9 \text{ hr}} = 60 \text{ km/hr}$$

$$\text{Speed of B Train} = \frac{540 \text{ km}}{6 \text{ hr}} = 90 \text{ km/hr}$$

To meet each other they have to travel 540 km distance

10 a.m. to 11 a.m. distance reduced between them =  $540 - 60 = 480$ Now their speed =  $60 + 90 = 150 \text{ km/hr}$ 

$$\therefore \text{Time taken} = \frac{480}{150} = 3.2 \text{ hr}$$

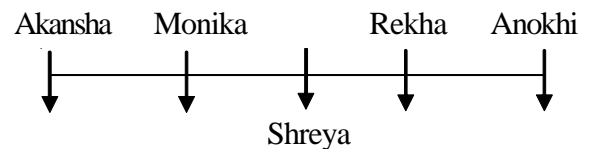
$$\begin{aligned} \text{Total Time required} &= 3.2 \text{ hr} + 1 \text{ hr (initial 1 hr)} \\ &= 4.2 \text{ hr} \\ &= 252 \text{ min} \end{aligned}$$

82) Ans.: a

Exp.: Option a is correct.

83) Ans.: c

Exp.: Option c is correct



84) Ans.: b

Exp.: Option b is correct

Total Cost = 650

let A clock costs – x

let B clock costs =  $(650 - x)$ 

$$[x + 20\% x] = [(650 - x) - 25\% (650 - x)]$$

$$120\% \text{ of } x = 75\% \text{ if } (650 - x)$$

$$120x = 48750 - 75x$$

$$195x = 48750$$

$$x = 250$$

A clocks cost = 250

B clocks cost = 400

85) Ans.: c

Exp.: Option c is correct.

Let it be x – engineering graduates

$$\text{each contribution} = \frac{48000}{x}$$

After 2 graduates leave the plan

$$\text{new contribution} = \frac{48000}{x} + 2000$$

$$\frac{48000}{x} - \frac{48000}{y} = 2000$$

$$y = (x - 2)$$

$$\frac{48000}{x} - \frac{48000}{x-2} = 2000$$

$$(x - 2)(48000) - x(48000) = 2000x(x - 2)$$

$$96000 = 2000x^2 - 4000x$$

$$96 = 2x^2 - 4x$$

$$2x^2 - 4x - 96 = 0$$

$$x^2 - 2x - 48 = 0$$

$$(x - 8)(x + 6) = 0$$

$$\text{i.e. } x = 8$$

**86) Ans.: d**

**Exp.:** Part filled by (A + B) in 1 hour =  $\left(\frac{1}{20} + \frac{1}{30}\right) = \frac{1}{12}$

So, A and B together can fill the tank in 12 hrs.  $\frac{1}{3}$

part

is filled by (A + B) in  $\left(\frac{1}{3} \times 12\right) = 4 \text{ hrs.}$

Since the leak empties one - third water, so time taken to fill the tank = Time taken by (A + B) to fill one - third tank = (12 + 4) hrs = 16 hrs.

**87) Ans.: b**

**88) Ans.: c**

**Exp.: Option c is correct.**

$$\text{Total ball} = {}^{15}C_3 = \frac{15!}{3!(15-3)!} = 455$$

$$\text{probability of red ball} = {}^5C_3 =$$

$$\frac{5!}{3!2!} = \frac{5 \times 4}{2 \times 1} = 10$$

$$= \frac{10}{455}$$

$$= \frac{2}{91}$$

**89) Ans.: c**

**Exp.:** We don't have sufficient information about C, E and F's ranking. So answer must be option c

The arrangement = D > CEF > G > A > B

**90) Ans.: c**

**Exp.:** The fourth Industrial Revolution is being used to design and implement government's programme in better way.

other statements are not correct.

1<sup>st</sup> statement is wrong as its not mentioned in passage that digitisation is the ONLY solution.

2<sup>nd</sup> statement is wrong as Indian and state governments have Not started fourth Industrial Revolution but implementing it for improving its programme designing and implementation statement 3<sup>rd</sup> is wrong as passage says that there is astronomical pace of digital data generation.

**91) Ans.: b**

**Exp.:** The most apt title can be Developmental transformation through digitisation as its most comprehensive among all other given options.

**92) Ans.: b**

**Exp.:** Only 2<sup>nd</sup> statement is correct.

1<sup>st</sup> statement is wrong as no where in given passage its mentioned that economic growth and transformations can ONLY be brought through programmes and reforms. Statement three is also wrong as it is not mentioned in given passage.

**93) Ans.: d**

**Exp.:** Government needs to set standards and develop regulations in market economy, is the most important implication of the given passage.

**94) Ans.: c**

**Exp.:** The statements 1 & 2 are wrong, while only statement 3 is correct. Its not mentioned that professional bodies are COMPLETELY unethical. The passage advocates the need of government intervention in the form of setting standards and regulations in market economy.



**95) Ans.: c**

**Exp.:** Both statements are correct.

In the third paragraph, the passage mentions that though tax reforms had started but still a lot of tax reforms needs to be done. And Indian taxation system has come a long way from narrow based and complicated to more efficient tax system.

**96) Ans.: b**

**Exp.:** The first statement is wrong as the third paragraph of passage mentions that the reforms in sales tax had only just began and a lot remains to be done. Other two statements are correct as directly mentioned in given passage.

**97) Ans.: d**

**Exp.:** All these three statements are not correct.

First - nowhere in passage the reference to Hindu philosophy is made.

Second - Siddha aims to cure not only diseases of body and mind but also of soul.

Third - The ultimate aim of human being is union of Jeevanma with paramanma (as per first line of passage).

**98) Ans.: a**

**Exp.:** Statement first is correct as mentioned in first line of the passage.

The statement second is not correct as its not mentioned in passage that Attanga yogam provides ULTIMATE path to reach the union of Jeevanma and paramanma.

**99) Ans.: b**

**Exp.:** The first statement is not correct, as public discontent has written the counter story of many regimes by changing the regimes in democracy also.

Rest of the two statements are correct as mentioned directly in the passage.

**100) Ans.: d**

**Exp.:** Both the statements are not correct. First statement is wrong as India could not achieve its, MDG of Infant and Maternal Mortality Rates as mentioned in last line of given passage.

The second statement is also not correct as India has made only considerable (and Not Remarkable) in case of Health related Goals.

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**ANSWER KEY - SET - B**

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12	a	37	a	62	a	87	c
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14	b	39	b	64	c	89	a
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17	a	42	b	67	d	92	a
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## EXPLANATION - SET - B

1) **Ans.: b**

**Exp.:** Foreign investment forms part of balance of payment and not budget.

2) **Ans.: c**

**Exp.:** President can't return money bill for reconsideration.

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**Exp.:** The 14th Finance Commission has given (10% wt. to 2011 census and 17.5% to 1971 census) Rest of the statements are correct.

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**Exp.:** All are correct.

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**Exp.:** NSG membership will not lead to automatically becoming member of CTBT. Rests of two statements are correct.

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**Exp.:** It allowed export of all varieties of edible oil (except mustard oil) in bulk, to promote domestic production. Mustard oil can be exported in max. 5 liters pack.

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**Exp.:** All these 3 parameters are considered while declaring famine.

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**Exp.:** It is located at West Bank and not Gaza Strip.

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**Exp.:** It provides wheat at ₹2/kg while Rice at ₹3/kg.

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**Exp.:** Channapatna toys belong to Karnataka and Kasuti embroidery belong to Karnataka.

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**Exp.:** It was set up in 1958.

16) **Ans.: d**

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Exp.: The Magnetic field of earth changes its strength, location and polarity over a period of time.

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Exp.: It will replace Holocene that started around 12000 yrs. ago.

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Exp.: During El Nino Modoki, Cyclone over Bay of Bengal decreases while cyclone over Arabian Sea increases.

**Q. 27-28**

	Ritesh	Pawan	Dinesh
<b>Sport</b>	Football	Cricket	Hockey
<b>Birthday</b>	Thursday	Monday	Tuesday
	<b>Anil</b>	<b>Dharam</b>	<b>Nitin</b>
<b>Sport</b>	Hockey	Football	Cricket
<b>Birthday</b>	Wednesday	Saturday	Friday

27) Ans.: a

Exp.: Option a is correct.

28) Ans.: c

Exp.: Option c is correct.

29) Ans.: d

Exp.: Option d is correct.

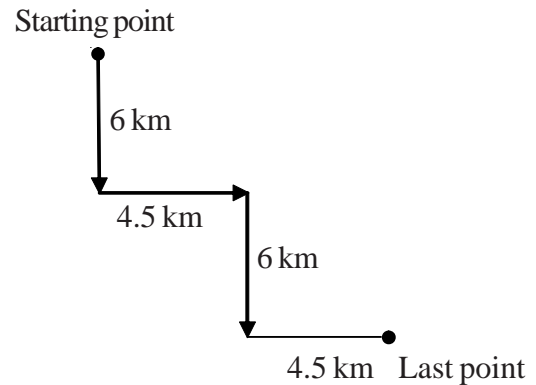
After 5 years - addition of their ages - 142

Addition of their today's age = 142 - 10 = 132

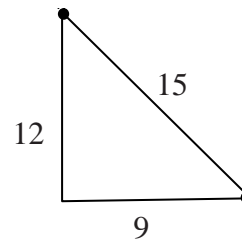
Hence from option d = 46+86 = 132

30) Ans.: c

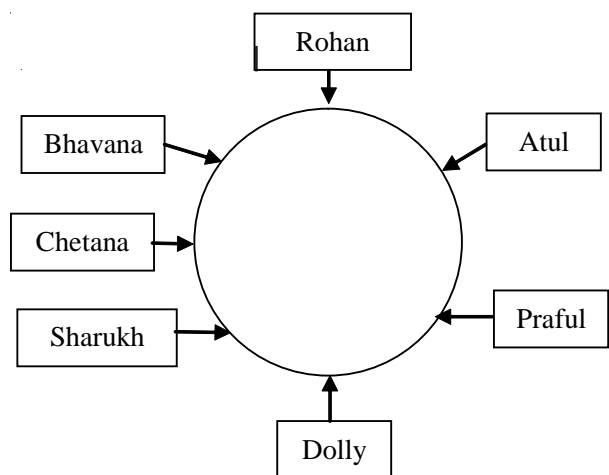
Exp.: Option c is correct.



By Pythagoras formula =  $12^2 + 9^2$   
 $= 144 + 81$   
 $= 225$   
 $= 15^2$



**Q. 31-33**



31) Ans.: a

Exp.: Option a is correct.

32) Ans.: c

Exp.: Option c is correct.

33) Ans.: d

Exp.: Option d is correct.

**34) Ans.: b****Exp.:** Speed of boat in still water = 15 km/hr

$$\text{Speed of upstream} = \frac{15}{3} \text{ km/hr} = 5 \text{ km/hr}$$

Let, Speed of current =  $x$ 

$$5 = 15 - x$$

$$x = 15 - 5$$

$$x = 10 \text{ km/hr}$$

**35) Ans.: b****Exp.:** Product of left and right number gives you middle number

$$\text{i.e. } 3 \times 1 = 3$$

$$4 \times 2 = 8$$

**36) Ans.: b****Exp.:** Option of b is correct.

$$\text{Speed of A Train} = \frac{540 \text{ km}}{9 \text{ hr}} = 60 \text{ km/hr}$$

$$\text{Speed of B Train} = \frac{540 \text{ km}}{6 \text{ hr}} = 90 \text{ km/hr}$$

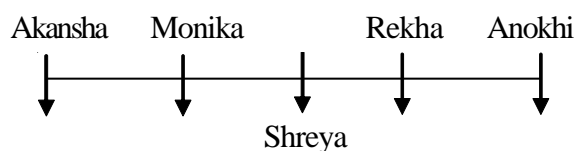
To meet each other they have to travel 540 km distance

$$10 \text{ a.m. to } 11 \text{ a.m. distance reduced between them} \\ = 540 - 60 = 480$$

$$\text{Now their speed} = 60 + 90 = 150 \text{ km/hr}$$

$$\therefore \text{Time taken} = \frac{480}{150} = 3.2 \text{ hr}$$

$$\text{Total Time required} = 3.2 \text{ hr} + 1 \text{ hr (initial 1 hr)} \\ = 4.1 \text{ hr} \\ = 252 \text{ min}$$

**37) Ans.: a****Exp.:** Option a is correct.**38) Ans.: c****Exp.:** Option c is correct**39) Ans.: b****Exp.:** Option b is correct

$$\text{Total Cost} = 650$$

$$\text{let A clock costs} = x$$

$$\text{let B clock costs} = (650 - x)$$

$$[x + 20\% x] = [(650 - x) - 25\% (650 - x)]$$

$$120\% \text{ of } x = 75\% \text{ if } (650 - x)$$

$$120x = 48750 - 75x$$

$$195x = 48750$$

$$x = 250$$

$$\text{A clocks cost} = 250$$

$$\text{B clocks cost} = 400$$

**40) Ans.: c****Exp.:** Option c is correct.Let it be  $x$  – engineering graduates

$$\text{each contribution} = \frac{48000}{x}$$

After 2 graduates leave the plan

$$\text{new contribution} = \frac{48000}{x} + 2000$$

$$\frac{48000}{x} - \frac{48000}{y} = 2000$$

$$y = (x - 2)$$

$$\frac{48000}{x} - \frac{48000}{x-2} = 2000$$

$$(x - 2)(48000) - x(48000) = 2000x(x - 2)$$

$$96000 = 2000x^2 - 4000x$$

$$96 = 2x^2 - 4x$$

$$2x^2 - 4x - 96 = 0$$

$$x^2 - 2x - 48 = 0$$

$$(x - 8)(x + 6) = 0$$

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**41) Ans.: d****Exp.:** Part filled by (A + B) in 1 hour =  $\left(\frac{1}{20} + \frac{1}{30}\right) = \frac{1}{12}$ So, A and B together can fill the tank in 12 hrs.  $\frac{1}{3}$ 

part

is filled by (A + B) in  $\left(\frac{1}{3} \times 12\right) = 4 \text{ hrs.}$ Since the leak empties one - third water, so time taken to fill the tank = Time taken by (A + B) to fill one - third tank =  $(12 + 4) \text{ hrs} = 16 \text{ hrs.}$

42) Ans.: b

43) Ans.: c

Exp.: Option c is correct.

$$\text{Total ball} = {}^{15}C_3 = \frac{15!}{3!(15-3)!} = 455$$

$$\text{probability of red ball} = 5 C_3 =$$

$$\frac{5!}{3!2!} = \frac{5 \times 4}{2 \times 1} = 10$$

$$= \frac{10}{455}$$

$$= \frac{2}{91}$$

44) Ans.: c

Exp.: We don't have sufficient information about C, E and F's ranking. So answer must be option c  
The arrangement = D > CEF > G > A > B

45) Ans.: c

Exp.: The fourth Industrial Revolution is being used to design and implement government's programme in better way.

Other statements are not correct.

1<sup>st</sup> statement is wrong as it's not mentioned in passage that digitisation is the ONLY solution.

2<sup>nd</sup> statement is wrong as Indian and state governments have not started fourth Industrial Revolution but implementing it for improving its programme designing and implementation  
statement 3<sup>rd</sup> is wrong as passage says that there is astronomical pace of digital data generation.

46) Ans.: b

Exp.: The most apt title can be Developmental transformation through digitisation as it's most comprehensive among all other given options.

47) Ans.: b

Exp.: Only 2<sup>nd</sup> statement is correct.

1<sup>st</sup> statement is wrong as nowhere in given passage it's mentioned that economic growth and

transformations can ONLY be brought through programmes and reforms. Statement three is also wrong as it is not mentioned in given passage.

48) Ans.: d

Exp.: Government needs to set standards and develop regulations in market economy, is the most important implication of the given passage.

49) Ans.: c

Exp.: The statements 1 & 2 are wrong, while only statement 3 is correct. It's not mentioned that professional bodies are COMPLETELY unethical. The passage advocates the need of government intervention in the form of setting standards and regulations in market economy.

50) Ans.: c

Exp.: Both statements are correct.

In the third paragraph, the passage mentions that though tax reforms had started but still a lot of tax reforms need to be done. And Indian taxation system has come a long way from narrow based and complicated to more efficient tax system.

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Exp.: The first statement is wrong as the third paragraph of passage mentions that the reforms in sales tax had only just begun and a lot remains to be done. Other two statements are correct as directly mentioned in given passage.

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Exp.: All these three statements are not correct.

First - nowhere in passage the reference to Hindu philosophy is made.

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**54) Ans.: b**

**Exp.:** The first statement is not correct, as public discontent has written the counter story of many regimes by changing the regimes in democracy also.

Rest of the two statements are correct as mentioned directly in the passage.

**55) Ans.: d**

**Exp.:** Both the statements are not correct. First statement is wrong as India could not achieve its, MDG of Infant and Maternal Mortality Rates as mentioned in last line of given passage.

The second statement is also not correct as India has made only considerable (and Not Remarkable) in case of Health related Goals.

**56) Ans.: d**

**Exp.:** Atmiya Sabha (1814), Gift to Monotheist (1809), Vedanta College (1825), Precepts of Jesus (1820).

**57) Ans.: a**

**Exp.:** Curzon followed a policy of withdrawal and concentration. Durand Line Agreement was signed in 1893 between Afgan Ruler Abdur Rehman Khan and Sir H. M. Durand. Curzon brought NWFP directly under Indian Government from provincial government of Punjab.

**58) Ans.: d**

**Exp.:** All of these were their demands.

**59) Ans.: b**

**Exp.:** It was held under the presidency of DadaBhai Naoroji and first time demanded Swarajya.

**60) Ans.: d**

**Exp.:** 1. Dyarchy was introduced at provinces and not at centre level.  
2. Bicameral legislature was introduced at centre level.  
3. Women could not become member of council of states.  
4. Central Legislative Assembly to have tenure of 3 years and not 5 years.

**61) Ans.: b**

**Exp.:** ■ In Champaran (1917) Gandhiji practiced Civil Disobedience by refusing to obey the orders of local administration to leave Champaran.

- In Ahmedabad, he practiced Hunger Strike to pressurise mill owners to give wage hike to workers.
- In Kheda, he practiced Non Co-Operation by asking villagers and farmers not to pay revenues.
- Rowlett Act was his first mass struggle in India.

**62) Ans.: a**

**Exp.:** Paika rebellion occurred in 1817 hence 40 years prior to 1857 uprising.

**63) Ans.: b**

**Exp.:** Vernacular Press Act imposed restriction only on Indian Language Papers and not on papers published in English. Hence Amrit Bazar Patrika changed its language into English to escape its strict restrictions.

**64) Ans.: c**

**Exp.:** It recommended Primary School Education to be in Vernacular Medium only, while High School education to be in Anglo-Vernacular language.

**65) Ans.: b**

**Exp.:** 1. Cabinet Mission offered full autonomy and residual power to provinces and not to central government.

2. Constituent Assembly to have indirectly elected members majority. Such members to be elected indirectly from provinces assemblies.

**66) Ans.: d**

**Exp.:** India's rank declined by 10 spots since 2010.

Global level too, has seen widening gender gap between 2016-2017 report. It is published by World Economic Forum. It is based on 4 pillars:

1. Health
2. Education
3. Workplace and
4. Political Representation

**67) Ans.: d**

**Exp.:** All these are related to GST-

- 1) Composition Scheme : A simplified GST regime for business with less than ₹ 1.5 crore turnover.
- 2) Harmonised System of Nomenclature : It's a standardised system of naming goods by organising them in hierarchical manner, into 2 to 8 digit codes.
- 3) E-way Bill : Electronically generated bill, compulsory before transporting goods worth min. ₹ 50,000 for interstate and intrastate transport.
- 4) Compliance Rating : a rating showing the GST compliance behaviour of a supplier.

**68) Ans.: b**

**Exp.:** It will help Indian banks in achieving Basel III norms. It is of around ₹ 2.1 Lakh Crore Rs. But only ₹ 18,000 Crore will be provided from union budget while remaining amount will be raised through recapitalisation bonds and other market sources. It is an example of Bail-out by government and not Bail-in.

**69) Ans.: c**

**Exp.:** In last five years (2013-18) the inflation has been declining significantly, hence narrowing the gap between the growth rate of real and nominal GDP. While over last decade, the growth rate of GDP has been fluctuating significantly mainly due to events as global economic recession and demonetisation. Hence, both statements are wrong.

**70) Ans.: b**

**Exp.:** Top 1% in India have 73% of India's income in 2017, while it was around 58% in 2016 report. While at global level its around 82%.

**71) Ans.: c**

**Exp.:** Recapitalisation and Nationalisation will increase the fiscal deficit due to increased expenditure of government while DBT will reduce leakage in subsidy and hence reduce expenditure, whereas disinvestment will increase income of government and help reduce Fiscal Deficit.

**72) Ans.: d**

**Exp.:** Transforming Aspirational District Program involves 3 C: convergence, collaboration and competition. It's not a Central Sector Scheme. Districts are selected by NITI Aayog. They are ranked in five development areas:

- |                      |                        |
|----------------------|------------------------|
| 1. Health            | 2. Education           |
| 3. Agriculture       | 4. Financial inclusion |
| 5. Skill Development |                        |

**73) Ans.: c**

**Exp.:** Four Reef habitats of India:

1. Kuchch
2. Mannar Gulf
3. Andaman & Nicobar Island
4. Lakshadweep

Kuchch and Mannar Gulf have fringing reef. Andaman & Nicobar Island have both fringing and Barrier reef while Lakshadweep has Atoll.



**74) Ans.: c**

**Exp.:** It's related to Sustainable Development Goals. India submitted its review report in 2017 by NITI Aayog Vice-chairman Arvind Panagariya.

**75) Ans.: d**

**Exp.:** Pioneer species have low efficiency of energy use and have simple food chains.

**76) Ans.: b**

**Exp.:** Kisanganj School (Nihalchand), Mewar (Sahibdin), Bikaner (Patsahi), Amber (Dhundar).

**77) Ans.: c**

**Exp.:** Pandit Bhimsen Joshi belonged to Kirana Gharana. Rest of the statement are correct.

**78) Ans.: c**

**Exp.:** It's from Kerala. It shows battle between Goddess Kali and demon Darika. It is performed in February to May.

**79) Ans.: a**

**Exp.:** RCEP is 16 membered grouping. Has 10 membered ASEAN and 6 countries having FTA with ASEAN. It also includes Japan and South Korea. Apart from goods and services it also includes investment, IPRs.

**80) Ans.: a**

**Exp.:** It's implemented by Minister of Women and Child Development. It has Swastha Bharat Preraks for achieving targets. It covers only 315 districts, while remaining districts will be covered in next two phases.

**81) Ans.: b**

**Exp.:** It will provide position accuracy of around 20 meters in Primary Service Area. Rest of the statements are correct.

**82) Ans.: a**

**Exp.:** Its Dhara Mustard Hybrid (DMH-11) which is developed in India by Delhi University under Dr. Pental. Other statements are correct.

**83) Ans.: b**

**Exp.:** Maize is not affected by Carbon Fertilisation as it has  $C_4$  Photo Synthesis System.  $1^{st}$  also increases water use efficiency by promoting lesser loss of water through transpiration.

**84) Ans.: b**

**Exp.:** As per NASA black holes can be as small as an atom to as massive as a million Sun's Mass. As our Sun's Mass is small hence it can't turn into blackhole.

**85) Ans.: a**

**Exp.:** Theravada is most ancient form of Buddhism. Zen Buddhism emphasises on daily life practices in place of strict study of scriptures. Theravada is dominant in South East Asia.

**86) Ans.: b**

**Exp.:** Its name is changed to Rajada, not for its more protection but to avoid social concern in its killing due to name 'Blue bull'.

**87) Ans.: c**

**Exp.:** Varroa mite and Neonicotinoid Pesticides are believed to be responsible for Colony Collapse Disorder.

**88) Ans.: d**

**Exp.:**  $CO_2$  is long lived with life time of over 100 yrs. while rest have lower life time: Ex. Black Carbon (few days) Ground Level Ozone (weeks), Methane (12 yrs.).

**89) Ans.: a**

**Exp.:** Tropical Dry Deciduous (42%), Moist Deciduous (25%), Thorn (Less than 20%)

**90) Ans.: a**

**Exp.:** • Our common future: Bertland Commission

- The future we want: Rio + 20 (2012).
- Transforming our world: SDG (2015)

**91) Ans.: c**

**Exp.:** It's more polluting as releases more Carbon and Sulphur. It's based on Petroleum Coke. India has imported it mainly from USA.

**92) Ans.: a**

**Exp.:** Basel conventions (Hazardous Waste)  
Rotter dam conventions (Persistent Organic Pollutants)

**93) Ans.: b**

**Exp.:** 1. Baralachala connects Keylong and Sarchu.  
2. Lang Lacha La connects Sarchu and Pang.  
Rest are correct.

**94) Ans.: c**

**Exp.:** Both are correct.

**95) Ans.: d**

**Exp.:** All these are direct taxes.

**96) Ans.: d**

**Exp.:** It's a grouping in WTO negotiation to stop fishery subsidies. India is not a member of it. And India opposes it.

**97) Ans.: c**

**Exp.:** All these capital cities are located on 77<sup>0</sup>E longitude.

**98) Ans.: d**

**Exp.:** Speed gun uses radio waves. Infrared waves are used for night vision. Ultra violet waves are used for checking forgery of currency notes.

**99) Ans.: b**

**Exp.:** Ozone has high oxidation potential. Rest statements are correct.

**100) Ans.: c**

**Exp.:** Bicameral nature of state legislature does not form part of federal nature.

**Savitribai Phule Pune University - Competitive Examinations Centre**  
**UGC - UPSC Coaching Programme Entrance Examination 2018**  
**ANSWER KEY - SET - C**

Q.No.	Ans	Q.No.	Ans	Q.No.	Ans	Q.No.	Ans
1	b	26	b	51	b	76	d
2	a	27	d	52	c	77	a
3	c	28	a	53	a	78	d
4	d	29	b	54	b	79	b
5	c	30	d	55	a	80	d
6	a	31	b	56	b	81	b
7	c	32	a	57	c	82	a
8	d	33	b	58	b	83	b
9	b	34	b	59	d	84	c
10	b	35	a	60	c	85	b
11	b	36	b	61	d	86	d
12	a	37	c	62	a	87	d
13	c	38	d	63	a	88	b
14	b	39	a	64	b	89	c
15	c	40	a	65	d	90	b
16	c	41	c	66	d	91	c
17	b	42	a	67	a	92	d
18	c	43	b	68	c	93	c
19	c	44	c	69	d	94	c
20	c	45	d	70	a	95	d
21	b	46	d	71	a	96	b
22	b	47	c	72	a	97	c
23	d	48	d	73	d	98	c
24	c	49	b	74	b	99	a
25	c	50	c	75	b	100	a

## EXPLANATION - SET - C

1) Ans.: b

Exp.: During El Nino Modoki, Cyclone over Bay of Bengal decreases while cyclone over Arabian Sea increases.

Q. 2-3

	<b>Ritesh</b>	<b>Pawan</b>	<b>Dinesh</b>
<b>Sport</b>	Football	Cricket	Hockey
<b>Birthday</b>	Thursday	Monday	Tuesday
	<b>Anil</b>	<b>Dharam</b>	<b>Nitin</b>
<b>Sport</b>	Hockey	Football	Cricket
<b>Birthday</b>	Wednesday	Saturday	Friday

2) Ans.: a

Exp.: Option a is correct.

3) Ans.: c

Exp.: Option c is correct.

4) Ans.: d

Exp.: Option d is correct.

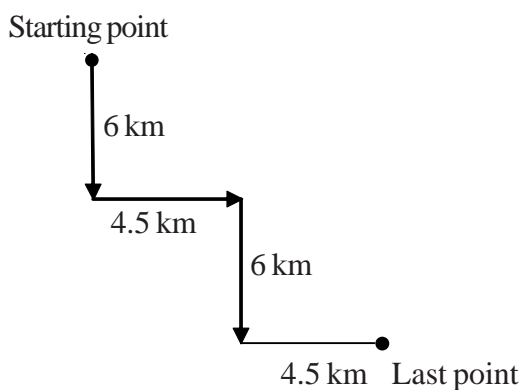
After 5 years - addition of their ages - 142

Addition of their today's age = 142 - 10 = 132

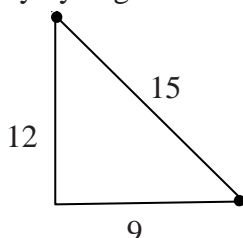
Hence from option d = 46+86 = 132

5) Ans.: c

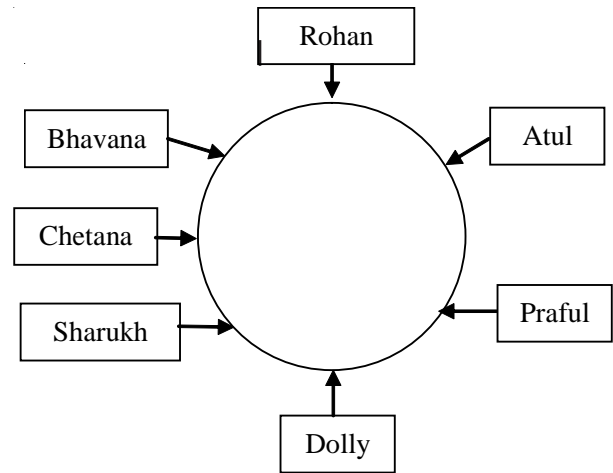
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By Pythagoras formula =  $12^2 + 9^2$   
 $= 144 + 81$   
 $= 225$   
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Q. 6-8



6) Ans.: a

Exp.: Option a is correct.

7) Ans.: c

Exp.: Option c is correct.

8) Ans.: d

Exp.: Option d is correct.

9) Ans.: b

Exp.: Speed of boat in still water = 15 km/hr

$$\text{Speed of upstream} = \frac{15}{3} \text{ km/hr} = 5 \text{ km/hr}$$

Let, Speed of current = x

$$5 = 15 - x$$

$$x = 15 - 5$$

$$x = 10 \text{ km/hr}$$

10) Ans.: b

Exp.: Product of left and right number gives you middle number

i.e.  $3 \times 1 = 3$

$$4 \times 2 = 8$$

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**Exp.: Option of b is correct.**

$$\text{Speed of A Train} = \frac{540 \text{ km}}{9 \text{ hr}} = 60 \text{ km/hr}$$

$$\text{Speed of B Train} = \frac{540 \text{ km}}{6 \text{ hr}} = 90 \text{ km/hr}$$

To meet each other they have to travel 540 km distance

10 a.m. to 11 a.m. distance reduced between them  
= 540 - 60 = 480

Now their speed = 60 + 90 = 150 km/hr

$$\therefore \text{Time taken} = \frac{480}{150} = 3.2 \text{ hr}$$

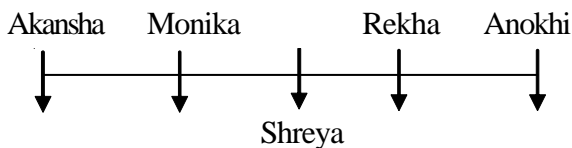
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**Exp.: Option a is correct.**

**13) Ans.: c**

**Exp.: Option c is correct**



**14) Ans.: b**

**Exp.: Option b is correct**

Total Cost = 650

let A clock costs - x

let B clock costs = (650 - x)

$$[x + 20\% x] = [(650 - x) - 25\% (650 - x)]$$

120% of x = 75% of (650 - x)

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**Exp.: Part filled by (A + B) in 1 hour =  $\left(\frac{1}{20} + \frac{1}{30}\right) = \frac{1}{12}$**

So, A and B together can fill the tank in 12 hrs.  $\frac{1}{3}$

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Since the leak empties one - third water, so time taken to fill the tank = Time taken by (A + B) to fill one - third tank = (12 + 4) hrs = 16 hrs.

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**Exp.:** • Our common future: Bertland Commission  
• The future we want: Rio + 20 (2012).  
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**53) Ans.: d**

**Exp.:** All of these were their demands.

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■ Rowlett Act was his first mass struggle in India.

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**Exp.:** India's rank declined by 10 spots since 2010. Global level too, has seen widening gender gap between 2016-2017 report. It is published by World Economic Forum. It is based on 4 pillars:  
1. Health  
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**Exp.:** All these are related to GST-

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**Exp.:** It will help Indian banks in achieving Basel III norms. It is of around ₹ 2.1 Lakh Crore Rs. But only ₹ 18,000 Crore will be provided from union budget while remaining amount will be raised through recapitalisation bonds and other market sources. It is an example of Bail-out by government and not Bail-in.

**64) Ans.: c**

**Exp.:** In last five years (2013-18) the inflation has been declining significantly, hence narrowing the gap between the growth rate of real and nominal GDP. While over last decade, the growth rate of GDP has been fluctuating significantly mainly due to events as global economic recession and demonetisation. Hence, both statements are wrong.

**65) Ans.: b**

**Exp.:** Top 1% in India have 73% of India's income in 2017, while it was around 58% in 2016 report. While at global level its around 82%.

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**Exp.:** Recapitalisation and Nationalisation will increase the fiscal deficit due to increased expenditure of government while DBT will reduce leakage in subsidy and hence reduce expenditure, whereas disinvestment will increase income of government and help reduce Fiscal Deficit.

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**Exp.:** Transforming Aspirational District Program involves 3 C: convergence, collaboration and competition. It's not a Central Sector Scheme. Districts are selected by NITI Aayog. They are ranked in five development areas:

1. Health
2. Education
3. Agriculture
4. Financial inclusion
5. Skill Development

**68) Ans.: c**

**Exp.:** Four Reef habitats of India:

1. Kuchch
2. Mannar Gulf
3. Andaman & Nicobar Island
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Kuchch and Mannar Gulf have fringing reef. Andaman & Nicobar Island have both fringing and Barrier reef while Lakshadweep has Atoll.

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**Exp.:** It's related to Sustainable Development Goals. India submitted its review report in 2017 by NITI Aayog Vice-chairman Arvind Panagariya.

**70) Ans.: d**

**Exp.:** Pioneer species have low efficiency of energy use and have simple food chains.

**71) Ans.: b**

**Exp.:** Kisanganj School (Nihalchand), Mewar (Sahibdin), Bikaner (Patsahi), Amber (Dhundar).

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**Exp.:** Pandit Bhimsen Joshi belonged to Kirana Gharana. Rest of the statement are correct.

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**Exp.:** It's from Kerala. It shows battle between Goddess Kali and demon Darika. It is performed in February to May.

**74) Ans.: a**

**Exp.:** RCEP is 16 membered grouping. Has 10 membered ASEAN and 6 countries having FTA with ASEAN. It also includes Japan and South Korea. Apart from goods and services it also includes investment, IPRs.

**75) Ans.: a**

**Exp.:** It's implemented by Minister of Women and Child Development. It has Swastha Bharat Preraks for achieving targets. It covers only 315 districts, while remaining districts will be covered in next two phases.

**76) Ans.: b**

**Exp.:** Foreign investment forms part of balance of payment and not budget.

**77) Ans.: c**

**Exp.:** President can't return money bill for reconsideration.

**78) Ans.: a**

**Exp.:** The 14th Finance Commission has given (10% wt. to 2011 census and 17.5% to 1971 census) Rest of the statements are correct.

**79) Ans.: b**

**Exp.:** He defeated Southern Kingdoms but did not annex them. Rest of the statements are correct.

**80) Ans.: a**

**Exp.:** All are correct.

**81) Ans.: b**

**Exp.:** It's based on 8 factors. Denmark has topmost rank while Norway was II<sup>nd</sup> ranked.

**82) Ans.: c**

**Exp.:** NSG membership will not lead to automatically becoming member of CTBT. Rests of two statements are correct.

**83) Ans.: b**

**Exp.:** It proposed fiscal Deficit target to be around 2.5% and Debt to be around 40% by 2022-23 for central government.

84) **Ans.: d**

**Exp.:** It allowed export of all varieties of edible oil (except mustard oil) in bulk, to promote domestic production. Mustard oil can be exported in max. 5 liters pack.

85) **Ans.: c**

**Exp.:** All are correct statements.

86) **Ans.: d**

**Exp.:** All these 3 parameters are considered while declaring famine.

87) **Ans.: a**

**Exp.:** It is located at West Bank and not Gaza Strip.

88) **Ans.: a**

**Exp.:** It provides wheat at ₹2/kg while Rice at ₹3/kg.

89) **Ans.: b**

**Exp.:** Channapatna toys belong to Karnataka and Kasuti embroidery belong to Karnataka.

90) **Ans.: d**

**Exp.:** It was set up in 1958.

91) **Ans.: d**

**Exp.:** All are correct statements.

92) **Ans.: a**

**Exp.:** It was based on "Atoms for Peace" address of USA President Eisenhower and not Truman.

93) **Ans.: c**

**Exp.:** There were 776 MPs in collegiums, while collegiums includes only the elected MPs and MLAs (State Assemblies) and not nominated members. Other two statements are correct.

94) **Ans.: d**

**Exp.:** All these towns are in Syria.

95) **Ans.: a**

**Exp.:** First two statements are correct, while bank can impose service charges if such notes being exchanged are over ₹5000 a day.

96) **Ans.: a**

**Exp.:** It shows value of the opportunity lost due to choosing of other alternative.

97) **Ans.: a**

**Exp.:** Treasury Bills are Short Term Debt Instruments (of 91, 182 and 364 days) while Cash Management Bills are of less than 91 days maturity to meet temporary mismatch in cash flow of Central Government.

98) **Ans.: d**

**Exp.:** The Magnetic field of earth changes its strength, location and polarity over a period of time.

99) **Ans.: b**

**Exp.:** These are Crypto Currencies except Melissa which is a virus infecting computers.

100) **Ans.: b**

**Exp.:** It will replace Holocene that started around 12000 yrs. ago.

**Savitribai Phule Pune University - Competitive Examinations Centre**  
**UGC - UPSC Coaching Programme Entrance Examination 2018**  
**ANSWER KEY - SET - D**

Q.No.	Ans	Q.No.	Ans	Q.No.	Ans	Q.No.	Ans
1	b	26	b	51	a	76	b
2	a	27	a	52	c	77	c
3	b	28	b	53	d	78	a
4	b	29	c	54	b	79	b
5	a	30	b	55	b	80	a
6	b	31	d	56	b	81	b
7	c	32	d	57	a	82	c
8	d	33	b	58	c	83	b
9	a	34	c	59	b	84	d
10	a	35	b	60	c	85	c
11	c	36	c	61	c	86	d
12	a	37	d	62	b	87	a
13	b	38	c	63	c	88	a
14	c	39	c	64	c	89	b
15	d	40	d	65	c	90	d
16	d	41	b	66	b	91	d
17	c	42	c	67	b	92	a
18	d	43	c	68	d	93	c
19	b	44	a	69	c	94	d
20	c	45	a	70	c	95	a
21	d	46	b	71	b	96	a
22	a	47	a	72	d	97	a
23	d	48	c	73	a	98	d
24	b	49	d	74	b	99	b
25	d	50	c	75	d	100	b

## EXPLANATION - SET - D

1) **Ans.: b**

**Exp.:** It will provide position accuracy of around 20 meters in Primary Service Area. Rest of the statements are correct.

2) **Ans.: a**

**Exp.:** Its Dhara Mustard Hybrid (DMH-11) which is developed in India by Delhi University under Dr. Pental. Other statements are correct.

3) **Ans.: b**

**Exp.:** Maize is not affected by Carbon Fertilisation as it has  $C_4$  Photo Synthesis System.  
1<sup>st</sup> also increases water use efficiency by promoting lesser loss of water through transpiration.

4) **Ans.: b**

**Exp.:** As per NASA black holes can be as small as an atom to as massive as a million Sun's Mass. As our Sun's Mass is small hence it can't turn into blackhole.

5) **Ans.: a**

**Exp.:** Theravada is most ancient form of Buddhism. Zen Buddhism emphasises on daily life practices in place of strict study of scriptures. Theravada is dominant in South East Asia.

6) **Ans.: b**

**Exp.:** Its name is changed to Rajada, not for its more protection but to avoid social concern in its killing due to name 'Blue bull'.

7) **Ans.: c**

**Exp.:** Varroa mite and Neonicotinoid Pesticides are believed to be responsible for Colony Collapse Disorder.

8) **Ans.: d**

**Exp.:**  $CO_2$  is long lived with life time of over 100 yrs. while rest have lower life time: Ex. Black Carbon (few days) Ground Level Ozone (weeks), Methane (12 yrs.).

9) **Ans.: a**

**Exp.:** Tropical Dry Deciduous (42%), Moist Deciduous (25%), Thorn (Less than 20%)

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Exp.: It's implemented by Minister of Women and Child Development. It has Swastha Bharat Preraks for achieving targets. It covers only 315 districts, while remaining districts will be covered in next two phases.

46) Ans.: b

Exp.: During El Nino Modoki, Cyclone over Bay of Bengal decreases while cyclone over Arabian Sea increases.

**Q. 47-48**

	<b>Ritesh</b>	<b>Pawan</b>	<b>Dinesh</b>
<b>Sport</b>	Football	Cricket	Hockey
<b>Birthday</b>	Thursday	Monday	Tuesday
	<b>Anil</b>	<b>Dharam</b>	<b>Nitin</b>
<b>Sport</b>	Hockey	Football	Cricket
<b>Birthday</b>	Wednesday	Saturday	Friday

47) Ans.: a

Exp.: Option a is correct.

48) Ans.: c

Exp.: Option c is correct.

49) Ans.: d

Exp.: Option d is correct.

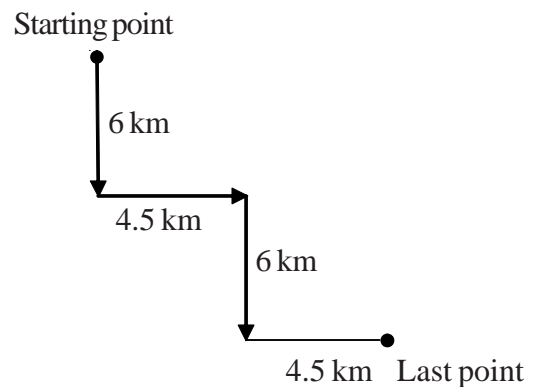
After 5 years - addition of their ages - 142

Addition of their todays age = 142 - 10 = 132

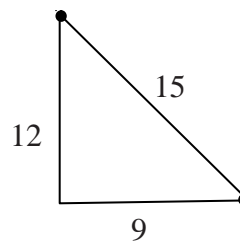
Hence from option d = 46+86 = 132

50) Ans.: c

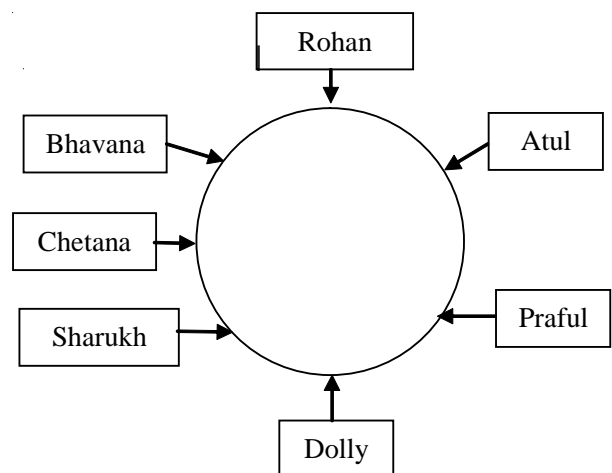
Exp.: Option c is correct.



By Pythagoras formula =  $12^2 + 9^2$   
 $= 144 + 81$   
 $= 225$   
 $= 15^2$



**Q. 51-53**



51) Ans.: a

Exp.: Option a is correct.



52) Ans.: c

Exp.: Option c is correct.

53) Ans.: d

Exp.: Option d is correct.

54) Ans.: b

Exp.: Speed of boat in still water = 15 km/hr

$$\text{Speed of upstream} = \frac{15}{3} \text{ km/hr} = 5 \text{ km/hr}$$

Let, Speed of current = x

$$5 = 15 - x$$

$$x = 15 - 5$$

$$x = 10 \text{ km/hr}$$

55) Ans.: b

Exp.: Product of left and right number gives you middle number

$$\text{i.e. } 3 \times 1 = 3$$

$$4 \times 2 = 8$$

56) Ans.: b

Exp.: Option of b is correct.

$$\text{Speed of A Train} = \frac{540 \text{ km}}{9 \text{ hr}} = 60 \text{ km/hr}$$

$$\text{Speed of B Train} = \frac{540 \text{ km}}{6 \text{ hr}} = 90 \text{ km/hr}$$

To meet each other they have to travel 540 km distance

$$10 \text{ a.m. to } 11 \text{ a.m. distance reduced between them} \\ = 540 - 60 = 480$$

$$\text{Now their speed} = 60 + 90 = 150 \text{ km/hr}$$

$$\therefore \text{Time taken} = \frac{480}{150} = 3.2 \text{ hr}$$

$$\text{Total Time required} = 3:2 \text{ hr} + 1 \text{ hr (initial 1 hr)}$$

$$= 4.1 \text{ hr}$$

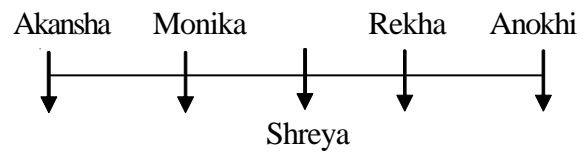
$$= 252 \text{ min}$$

57) Ans.: a

Exp.: Option a is correct.

58) Ans.: c

Exp.: Option c is correct



59) Ans.: b

Exp.: Option b is correct

$$\text{Total Cost} = 650$$

let A clock costs = x

let B clock costs = (650 - x)

$$[x + 20\% x] = [(650 - x) - 25\% (650 - x)]$$

$$120\% \text{ of } x = 75\% \text{ if } (650 - x)$$

$$120x = 48750 - 75x$$

$$195x = 48750$$

$$x = 250$$

A clocks cost = 250

B clocks cost = 400

60) Ans.: c

Exp.: Option c is correct.

Let it be x – engineering graduates

$$\text{each contribution} = \frac{48000}{x}$$

After 2 graduates leave the plan

$$\text{new contribution} = \frac{48000}{x} + 2000$$

$$\frac{48000}{x} - \frac{48000}{y} = 2000$$

$$y = (x - 2)$$

$$\frac{48000}{x} - \frac{48000}{x-2} = 2000$$

$$(x - 2)(48000) - x(48000) = 2000x(x - 2)$$

$$96000 = 2000x^2 - 4000x$$

$$96 = 2x^2 - 4x$$

$$2x^2 - 4x - 96 = 0$$

$$x^2 - 2x - 48 = 0$$

$$(x - 8)(x + 6) = 0$$

$$\text{i.e. } x = 8$$

**61) Ans.: d**

**Exp.:** Part filled by (A + B) in 1 hour =  $\left(\frac{1}{20} + \frac{1}{30}\right) = \frac{1}{12}$

So, A and B together can fill the tank in 12 hrs.  $\frac{1}{3}$

part

is filled by (A + B) in  $\left(\frac{1}{3} \times 12\right) = 4 \text{ hrs.}$

Since the leak empties one - third water, so time taken to fill the tank = Time taken by (A + B) to fill one - third tank = (12 + 4) hrs = 16 hrs.

**62) Ans.: b**

**63) Ans.: c**

**Exp.: Option c is correct.**

$$\text{Total ball} = {}^{15}C_3 = \frac{15!}{3!(15-3)!} = 455$$

probability of red ball =  ${}^5C_3 =$

$$\frac{5!}{3!2!} = \frac{5 \times 4}{2 \times 1} = 10$$

$$= \frac{10}{455}$$

$$= \frac{2}{91}$$

**64) Ans.: c**

**Exp.:** We don't have sufficient information about C, E and F's ranking. So answer must be option c

The arrangement = D > CEF > G > A > B

**65) Ans.: c**

**Exp.:** The fourth Industrial Revolution is being used to design and implement government's programme in better way.

other statements are not correct.

1<sup>st</sup> statement is wrong as it's not mentioned in passage that digitisation is the ONLY solution.

2<sup>nd</sup> statement is wrong as Indian and state governments have Not started fourth Industrial

Revolution but implementing it for improving its programme designing and implementation statement 3<sup>rd</sup> is wrong as passage says that there is astronomical pace of digital data generation.

**66) Ans.: b**

**Exp.:** The most apt title can be Developmental transformation through digitisation as it's most comprehensive among all other given options.

**67) Ans.: b**

**Exp.:** Only 2<sup>nd</sup> statement is correct.

1<sup>st</sup> statement is wrong as nowhere in given passage it's mentioned that economic growth and transformations can ONLY be brought through programmes and reforms. Statement three is also wrong as it is not mentioned in given passage.

**68) Ans.: d**

**Exp.:** Government needs to set standards and develop regulations in market economy, is the most important implication of the given passage.

**69) Ans.: c**

**Exp.:** The statements 1 & 2 are wrong, while only statement 3 is correct. It's not mentioned that professional bodies are COMPLETELY unethical. The passage advocates the need of government intervention in the form of setting standards and regulations in market economy.

**70) Ans.: c**

**Exp.:** Both statements are correct.

In the third paragraph, the passage mentions that though tax reforms had started but still a lot of tax reforms need to be done. And Indian taxation system has come a long way from narrow based and complicated to more efficient tax system.

**71) Ans.: b**

**Exp.:** The first statement is wrong as the third paragraph of passage mentions that the reforms in sales tax had only just began and a lot remains to be done. Other two statements are correct as directly mentioned in given passage.

**72) Ans.: d**

**Exp.:** All these three statements are not correct.

First - nowhere in passage the reference to Hindu philosophy is made.

Second - Siddha aims to cure not only diseases of body and mind but also of soul.

Third - The ultimate aim of human being is union of Jeevanma with paramanma (as per first line of passage).

**73) Ans.: a**

**Exp.:** Statement first is correct as mentioned in first line of the passage.

The statement second is not correct as its not mentioned in passage that Attanga yogam provdes ULTIMATE path to reach the union of Jeevanma and paramanma.

**74) Ans.: b**

**Exp.:** The first statement is not correct, as public discontent has written the counter story of many regimes by changing the regimes in democracy also.

Rest of the two statements are correct as mentioned directly in the passage.

**75) Ans.: d**

**Exp.:** Both the statements are not correct. First statement is wrong as India could not achieve its, MDG of Infant and Maternal Mortality Rates as mentioned in last line of given passage.

The second statement is also not correct as India has made only considerable (and Not Remarkable) in case of Health related Goals.

**76) Ans.: b**

**Exp.:** Foreign investment forms part of balance of payment and not budget.

**77) Ans.: c**

**Exp.:** President can't return money bill for reconsideration.

**78) Ans.: a**

**Exp.:** The 14th Finance Commission has given (10% wt. to 2011 census and 17.5% to 1971 census) Rest of the statements are correct.

**79) Ans.: b**

**Exp.:** He defeated Southern Kingdoms but did not annex them. Rest of the statements are correct.

**80) Ans.: a**

**Exp.:** All are correct.

**81) Ans.: b**

**Exp.:** It's based on 8 factors. Denmark has topmost rank while Norway was II<sup>nd</sup> ranked.

**82) Ans.: c**

**Exp.:** NSG membership will not lead to automatically becoming member of CTBT. Rests of two statements are correct.

**83) Ans.: b**

**Exp.:** It proposed fiscal Deficit target to be around 2.5% and Debt to be around 40% by 2022-23 for central government.

**84) Ans.: d**

**Exp.:** It allowed export of all varieties of edible oil (except mustard oil) in bulk, to promote domestic production. Mustanrd oil can be exported in max. 5 liters pack.

**85) Ans.: c**

**Exp.:** All are correct statements.

86) Ans.: d

Exp.: All these 3 parameters are considered while declaring famine.

87) Ans.: a

Exp.: It is located at West Bank and not Gaza Strip.

88) Ans.: a

Exp.: It provides wheat at ₹2/kg while Rice at ₹3/kg.

89) Ans.: b

Exp.: Channapatna toys belong to Karnataka and Kasuti embroidery belong to Karanataka.

90) Ans.: d

Exp.: It was set up in 1958.

91) Ans.: d

Exp.: All are correct statements.

92) Ans.: a

Exp.: It was based on "Atoms for Peace" address of USA President Eisenhower and not Truman.

93) Ans.: c

Exp.: There were 776 MPs in collegiums, while collegiums includes only the elected MPs and MLAs (State Assemblies) and not nominated members. Other two statement are correct.

94) Ans.: d

Exp.: All these towns are in Syria.

95) Ans.: a

Exp.: First two statement are correct, while bank can impose service charges if such notes being exchanged are over ₹5000 a day.

96) Ans.: a

Exp.: It show value of the opportunity lost due to choosing of other alternative.

97) Ans.: a

Exp.: Treasury Bills are Short Term Debt Instruments (of 91, 182 and 364 days) while Cash Management Bills are of less than 91 days maturity to meet temporary mismatch in cash flow of Central Government.

98) Ans.: d

Exp.: The Magnetic field of earth changes its strength, location and polarity over a period of time.

99) Ans.: b

Exp.: These are Crypto Currencies except Melissa which is a virus infecting computers.

100) Ans.: b

Exp.: It will replace Holocene that started around 12000 yrs. ago.