



# ACE

## Engineering Academy

TEST ID: 502

Head Office : Sree Sindhi Guru Sangat Sabha Association, # 4-1-1236/1/A, King Koti, Abids, Hyderabad - 500001.

Ph: 040-23234418, 040-2324419, 040-2324420, 040-24750437

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ESE- 2020 (Prelims) - Offline Test Series

Test- 4

GENERAL STUDIES AND ENGINEERING APTITUDE

### SUBJECT: INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) SOLUTIONS

**01. Ans: (d)**

**Sol:** USSD (Unstructured Supplementary Service Data).

The innovative \*99# code allows mobile banking transactions using basic feature mobile phone, there is no need to have mobile internet.

**02. Ans: (d)**

**Sol:** Bharat QR code is an interoperable payment acceptance solution that supports visa, master cards.

QR code consists of black squares arranged in a square and on white background which can be read by imaging devices.

Statement (2) is an explanation for UPI (Unified payment Interface).

**03. Ans: (d)**

**Sol:** Environmental Information System (ENVIS) is distributed environmental information network with mandate of collection storage, retrieval of various information about environment. All the statements above are objectives of ENVIS.

**04. Ans: (a)**

**Sol:** CCTNS (Crime and Criminal Tracking Network and System Projects) is national database of crimes and criminals. So, statement (1) is true.

**05. Ans: (b)**

**Sol:** Digital signature is a method of signing the documents in order to locate a person uniquely with the help of encryption and decryption.

**06. Ans: (d)**

**Sol:** It provides information such as ocean state forecast, High wave alerts and Tsunami warnings.

It focuses on coastal community and fisher community but not transaction details for fisherman.

**07. Ans: (a)**

**Sol:** Study webs of Active-learning for Young Aspiring minds (SWAYAM) is being developed for hosting of MOOC's.

**08. Ans: (d)**

**09. Ans: (c)**

**Sol:** GPRS: General Packet Radio Service is termed as 2.5G, while GSM comes under 2G.

**10. Ans: (b)**

**Sol:** FDMA allows frequency division and users are communicating in that frequency, FDMA takes one frequency and allows users to communicate in that frequency.

# SSC-JE (Paper-II) MAINS 2018

## OFFLINE TEST SERIES

Streams: Civil | Electrical | Mechanical

### FULL LENGTH MOCK TEST-1

Exam Date: **01.12.2019**

Exam Timing: **6:00 pm to 8:00 pm**

### FULL LENGTH MOCK TEST-2

Exam Date: **15.12.2019**

Exam Timing: **6:00 pm to 8:00 pm**

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## ISRO ONLINE TEST SERIES

**No. of Tests : 15**

Subject Wise Tests : 12 | Mock Tests : 3

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Recruitment of Scientist/Engineer 'SC'

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**11. Ans: (c)**

**Sol:** Different deployment models by cloud computing.

- Public cloud
- Private cloud
- Hybrid cloud
- Community cloud
- IaaS is service but not models.

**12. Ans: (b)**

**Sol:** It is a specific type of solar orbit located at gravitational stable point between earth and sun this orbit will be used in ADITYA mission in India.

**13. Ans: (c)**

**Sol:** Software engineering uses different models such as waterfall model, V model, incremental model, RAD model and it is also cocomo and putnam model for cost, time and effort.

**14. Ans: (c)**

**Sol:** Digital signature provides methods of protections of documents which uses various property like integrity, non repudiation and authenticity and non forgeable.

**15. Ans: (a)**

**Sol:** Communication satellite is providing telecommunication system, while Navigational Satellite will take care of traffic studies.

**16. Ans: (d)**

**Sol:** INSAT is a series of multipurpose geostationary satellite launched by ISRO for telecommunication broadcasting and rescue.

**17. Ans: (d)**

**Sol:** ASCII, abbreviated from American Standard Code for Information Interchange, is a character encoding standard for electronic communication. ASCII codes represent text

in computers, telecommunications equipment, and other devices.

**18. Ans: (c)**

**Sol:** Web 4.0 will be going to use webOS that will be middleware between hardware and web and uses AI like a human brain.

**19. Ans: (b)**

**Sol:** Statement (I) is an explanation for social networking but not for social engineering. Social engineering is basically one of the attack methods.

**20. Ans: (a)**

**Sol:** Statement (I) is true, while statement (2) is a definition of identity theft and statement (3) is definition of denial of service attack.

**21. Ans: (d)**

**Sol:** Statement (1) is a definition of passive attack while second one is for active attack.

**22. Ans: (c)**

**Sol:** The above is definition of trojan horse. Digital spy is not any malicious software key logger captures keystroke of keyboard which is malware. Botnet which maintains large software group to attack server.

**23. Ans: (b)**

**Sol:** In order to use digital signature both parties have to buy digital certificates from certified authority and like any software it also has expiry date.

**24. Ans: (d)**

**Sol:** Statement (I) is based on concept called as CDMA (Code Division Multiple Access) while FDMA (Frequency Division Multiple Access)

# TEST YOUR PREP

IN A REAL TEST ENVIRONMENT

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- ◆ Post **GATE** guidance sessions by experts.
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# SSC-JE (Paper-I)

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### No. of Tests : 20

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**25. Ans: (d)**

**Sol:** Volunteer computing is an example of distributed computing where many volunteer provides resources such as processor and memory in order to solve common problem, it is also called as virtual super computing.

**26. Ans: (d)**

**Sol:** GAGAN: GPS Aided GEO Augmented Navigation

**27. Ans: (b)**

**Sol:** It is military satellite of India also called as Rukmini.

**28. Ans: (d)**

**Sol:** L-band uses (1-2 GHz) frequency which is used in GPs.  
S-band uses (2-4 GHz) frequency weather radar.

**29. Ans: (c)**

**Sol:** CARD (Computer Aided Administration of Registration Department) project initiated by government of A.P illustrates the effective use of IT to improve citizen-government interface.

**30. Ans: (b)**

**Sol:** Statement (1) is a project name called as sourkanyan and statement (2) is true called as E-seva project.

**31. Ans: (a)**

**Sol:** OLED : organic light emitting diode is latest and new technology for mobiles and monitor display while AMOLED : active matrix organic light emitting diode is oled displays light weight and improved battery life displays.

**32. Ans: (d)**

**Sol:** Barometer that can measure atmospheric pressure.

While magnetometer it is compass which is relative to earth's magnetic north.

**33. Ans: (b)**

**Sol:** Vittiya Saksharta Abhiyan emphasized upon cashless economy and appealed to faculty of higher institutions to make their respective campus cashless.

**34. Ans: (c)**

**Sol:** It is online platform where woman entrepreneurs can sell their products directly also women entrepreneurs don't have to pay any fees for selling the product online.

**35. Ans: (b)**

**Sol:** Removing errors is also called debugging. EEPROM is also called flash memory and example is pen drive  
OCR is Image printing text  
Putting magnetic film on plastic ribbon to store information is an example of magnetic tape.

**36. Ans: (b)**

**Sol:** Virtual reality refers to computer technologies that uses virtual reality headset to generate images, sounds and other sensation that replicate a real environment that can be used in training and education hence statement (2) is correct and simulate this we need a language called as Virtual reality modelling language.

**37. Ans: (b)**

**Sol:** Digital India will bridge the differences of Digital division to ensure that government services reach every house hold, it is mostly for citizens not for business and industry so statement (1) and (2) are correct.

# HEARTY CONGRATULATIONS TO OUR **ESE - 2019** TOP RANKERS

AIR 1			AIR 1			AIR 1			AIR 1										
																			
KARTIKEYA SINGH EE			RAJAT SONI E&T			HARSHAL BHOSALE ME			ABUZAR GAFFARI CE										
AIR 2		AIR 2		AIR 2		AIR 3		AIR 3		AIR 3		AIR 4		AIR 4					
																			
SHAMBHAVI EE		ANKUSH MANDLA E&T		SAHIL DOYAL ME		ABHISHEK KHARE EE		ROHIT KUMAR E&T		KUMAR CHANDAN ME		AMARJEET CE		ANKIT TAYAL EE		AMIR KHAN E&T			
AIR 4		AIR 4		AIR 5		AIR 5		AIR 6		AIR 6		AIR 6		AIR 7		AIR 7		AIR 7	
																			
SAURAV ME		AMAN GULIA CE		KUMAR MAHESH EE		RISHI CHANDRA CE		RITESH LALWAN EE		PUSHPAK ME		NIKHIL BHANDARI CE		KARTKEY SINGH EE		RAHUL JAIN E&T		MANISH RAJPUT ME	
AIR 8		AIR 8		AIR 8		AIR 9		AIR 9		AIR 9		AIR 9		AIR 10		AIR 10		AIR 10	
																			
KULDEEP KUMAR E&T		HEMANT KUMAR ME		YOGESH KUMAR CE		IKEPTA ROY EE		VISHWAKUMAR E&T		S BARAPARA ME		ANKIT KUMAR CE		ANKITA SHARMA EE		KARAN BHOWMIK E&T		SMIT SHINDE ME	

**TOTAL SELECTIONS** in Top 10: **33**  
 (EE: **9**, E&T: **8**, ME: **9**, CE: **7**) and many more...



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**38. Ans: (d)**

**Sol:** Modem (modulator – Demodulator ) It converts digital to analog and analog-to-digital signals such that computer can easily sends the signals.

**39. Ans: (b)**

**Sol:** Virtual – clusters this web portal is managed by ministry of micro-small and medium enterprises.

**40. Ans: (a)**

**Sol:** Radio waves are omnidirectional in nature and it can penetrate the wave and having range 30 KHz to 300 GHz.

**41. Ans: (d)**

**Sol:** Firewall is a system which is used to block unauthorised user to and fro from the system. SMPS stands for Switched Mode Power Supply.

**42. Ans: (d)**

**Sol:** Digital signature is an electronic method of signing an electronic document whereas a digital certificate is a computer based record.

**43. Ans: (d)**

**Sol:** Optical computer is also called as photonic computer which uses visible light or infrared, while quantum computing uses protons, neutrons and electrons.

**44. Ans: (b)**

**Sol:** Virtual Reality is basically providing replica of reality while augmented reality is superimposition of digital information to reality.

**45. Ans: (a)**

**Sol:** NHAH takes steps to facilitate availability of FASTag for electronic toll collection common service centre to set up sale points at toll plazas. It use FASTag which is based

on RFID which can be purchased online from issuer bank website/NHAH websites.

**46. Ans: (b)**

**Sol:** Geo Information system it is also referred as GIScience hence statement (II) is true, it provides information about an objects (Rivers, Lands) hence statement (I) is also true.

**47. Ans: (b)**

**Sol:** NeGP works with 3 different architecture.

1. MMP
2. CSC
3. SWAN

Hence, both the statements are true.

**48. Ans: (a)**

**Sol:** Parallel computing has many processors, so it carried fast process as compared to single processor computing. Where many calculations are carried out simultaneously.

**49. Ans: (b)**

**Sol:** Blu-ray uses blue-laser which is blue-light instead of red light, blue-light has a shorter-wave length than red light. So, it saves more data.

**50. Ans: (d)**

**Sol:** In statement (I) vulnerability is a weakness in a system that can be easily exploited if found by an attacker. Statement (II) an act that exploit vulnerability which is always intentional.